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ORGANIZATIONAL STUDY AND DESIGN

Student Manual

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**United States
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Washington Area
Training and
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Services

Washington, D.C. 20415

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Washington Area Training And Development Services
Workforce Effectiveness And Development
Office of Personnel Management
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Washington, DC 20415

ORGANIZATIONAL STUDY AND DESIGN

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INTRODUCTION

Impact and Nature of Organization

In many respects organizations dominate our society and our lives. In addition to our involvement in natural human groupings, such as families and friendship groups, we are typically born in organizations, educated by organizations, and spend our working lives employed by organizations.

Organizations are not a recent innovation; they have been used throughout known history to build empires, pyramids, ways of life -- and other organizations. What is new is the pervasive nature of modern organizations, with a greater number and variety of them, a larger proportion of the population involved in them, and the attempt to meet more social and personal needs through them. Indeed, the number and importance of organizations has created a requirement for super-organizations to regulate and guide them.

An organization may be simply defined as a human grouping established to accomplish objectives. It is expected to perform a mission or turn out products or services; and as members undertake to do the work involved, several observable characteristics of an organization emerge, including:

1. Division of work and specialization.
2. Coordination of varied activities.
3. Communication.
4. Definition of relationships (e.g., superior/subordinate).

The word "organization" comes from "organism", which is a structure with parts so integrated that their relation to each other is governed by their relation to the whole. This points out two basic elements of an organization, parts and relationships. The parts are the tasks necessary for accomplishing the entire work and the persons assigned to these tasks. The parts inherently have some relation to each other, as the complementary tasks of production and sales in a manufacturing firm, but the most significant relationships arise among the people performing the tasks.

How these parts and relationships evolve becomes a critical question for any organization.

Approaches to the Study of Organization

Organization theory can be approached in a variety of ways, including the classical approach, the behavioral approach, and the systems approach.

The classical approach is based on the theory of bureaucratic organizations[1] and basic principles of organization. The bureaucratic organization is usually described as consisting of a high degree of specialization of labor, a hierarchy of positions with a well-defined chain of command, selection and promotion based on technical competence, rules and procedures to guide all work activities, and impersonal, unemotional relationships which allow completely rational decisions. Supporting the characteristics of the bureaucratic organization are such classical principles of organization as unity of command, equality of authority and responsibility, span of control, centralization-decentralization, departmentation, and line-staff. The bureaucratic-classic structure dominates large organizations of all types today.

In supplement to--and sometimes in conflict with--classical organization structuring are such things as the informal organization, project organizations, and matrix organizations.

The behavioral approach to organization theory turns from emphasis on the analysis of structure to the interaction of humans and formal organizations which creates organizational behavior. Drawing heavily on research findings in the various behavioral sciences, comprised of psychology, sociology and anthropology, this approach stresses the human role in the functioning of the organization. Three levels of analysis may be considered: the individual, with such topics as personality, leadership styles, and especially, motivation; the group, with such topics as group conflict, norms, and problem solving; and the whole of the organization, with such topics as relations of total organizations to each other and the effects on behavior of the total organization.

A third approach is to view the organization as a system. In the systems approach, the organization is seen as a set of interacting parts, with emphasis on the interrelatedness and interdependency of the parts. The organization structure, the technical processes, the information flows, the decision-making processes, and other factors are all seen as subsystems which interact with each other and with larger systems and the environment; a change in any of these factors sets off a chain reaction that will affect others. The open-system approach,

[1] Putting aside negative connotations, the term "bureaucracy" refers to a type of organization designed to accomplish tasks (often on a large scale) by systematically coordinating the efforts of many workers.

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especially, is receiving much attention because of the recognition it allows for the impact of the entire environment on the system's process of transforming inputs into outputs. In this sense, the organization structure designed for the transformation process is a subsystem of the larger system, and may be greatly affected by factors in the environment. At the present time, it is probably appropriate to say that the systems approach is more of a conceptual framework than an actual guide to solving problems of organization structure, but analysts should be aware that significant insights are being provided by writers who approach an organization as a social system or an information processing system.

The relative merit of these approaches has sparked some heated controversy, based upon an underlying assumption that there should be one universal theory which would apply to all organizational situations, and if one approach is right, the others must be wrong. But with organizations differing in their purposes, their objectives, technology, size, personnel, environment, and other factors, this assumption proved to be an oversimplification. Recently, there has been growing recognition that all the approaches have validity and the choice among them depends on the circumstances of the situation; this is called the "contingency" or "situational" approach to organizational matters because the right choice is seen as being contingent upon factors in the particular situation. Thus, the consideration of such questions as what jobs should be placed together in the same department, or how the organization can best meet the requirements of a new law, will be described by "It all depends . . ."

All of these approaches will be utilized in the material that follows, with the primary focus on the building of the organization structure itself.

Organizational Effectiveness and Efficiency

Improving organizational effectiveness and efficiency is largely what the study of organization structuring is all about. Effectiveness refers to the degree to which an organization is doing what it was set up to do--accomplishing its mission and meeting its objectives. Efficiency refers to the way the organization utilizes its resources. In each case, performance is measured by comparing the actual results that occur to the results that are desired from the effort.

Simple enough in concept, both terms can be difficult to apply and measure, especially as our individual values and interests guide us toward what we think an organization should be doing. A business that is organized to produce and sell a product would have to do those things to be considered effective, of course, but it would have to do more than that to satisfy its various constituencies: its managers would expect growth and progress, its stockholders would expect a return on their investment, environmentalists would expect protection of the surroundings, government would expect compliance with laws and regulations, the community would expect the firm to be socially responsible, and unions, minorities, consumers, financial institutions and others will all have their own interests. The organization will respond by stating objectives for these areas and may also set up organizational elements to deal with them, as seen in elements for safety, legal service, community affairs, labor relations, or equal employment opportunity.

Efficiency -- how well an organization is utilizing its resources -- is a continuing concern for government as well as business. The effort to get greater outputs for the same or fewer inputs is a challenge for every manager. Efficiency is usually measured by work measurement techniques that state an amount of time appropriate for a unit of work, by calculating total cost per unit produced, or by productivity measures of output in relation to resources consumed as input. Organizational moves to improve efficiency may include such steps as consolidation of small elements to achieve some economies of scale, reducing the number of levels in the hierarchy, establishing special positions to facilitate communication and coordination, and realignment of various elements.

Clues to Organizational Health

There are several characteristics we look for, and expect from, a properly functioning organization, in addition to accomplishing its objectives.

A sound organization:

1. Facilitates administration and coordination of activities.
2. Facilitates expansion and contraction of operations.
3. Encourages the proper use of human beings.
4. Provides for optimum use of technological improvements.
5. Stimulates creativity and innovation.

These characteristics of good organizational health may be more than offset by difficulties that develop, sometimes almost imperceptibly, over a period of time.

During the early development of the organization, the addition of personnel and activities is likely to be on the basis of immediate needs, without following any plan of organizational development. The operating managers are usually too busy with day-to-day operations and problems to take the time for longer range planning, and the smaller firm cannot afford separate planning personnel to develop such programs.

This immediate-need approach may work quite well while the firm is small, but it becomes unsatisfactory as the firm grows larger and more complex, especially as it reaches the point where the top manager can no longer know all the employees and all phases of the operation at first hand. The organization becomes impersonal, and contacts with employees are indirect, relying upon reports rather than close personal contact.

Without planning the growth and maintenance of the organization, signs of poor organization eventually begin to appear:

1. Overlapping of jobs and duplication of effort.
2. Empire building by individuals.
3. Passing the buck because of lack of clear-cut responsibility.
4. Certain functions receive more or less priority and attention than they should; "pet" or prestige projects are pushed at the expense of others which may be more important.
5. Each unit in the organization stresses its own importance; coordination suffers and service groups no longer serve.
6. Slowness in decision-making and in carrying out decisions.
7. Inadequate communication, especially upward, where there is a lack of knowledge of results and problems.
8. Bottlenecks in various areas.
9. Clashes between departments as well as individuals.
10. Excessive conflicts between line and staff.
11. Employees capable of more important jobs are stuck in minor ones; may lead to low morale, absenteeism, excessive turnover.
12. Under-utilization of available facilities and talents.
13. Low or declining productivity.
14. High costs, especially in overhead.
15. Mistrust, secretiveness.

These and other signs of defective organizing tend to force themselves into our attention; by contrast, evidence of good organization, characterized by a lack of such problems (and the positive points identified earlier), tends to be taken for granted as long as things are running smoothly. But, a good organization structure is not permanent. Forces are constantly at work, both inside and outside the organization, which will require adjustments in the organization if it is to remain effective. Examples of these forces are changes in:

1. The mission of the organization.
2. Growth and contraction of operations.
3. Management personnel.
4. Technology.
5. Policies.
6. Facilities and equipment.
7. Procedures and methods.
8. Workload.
9. Personnel/resources.
10. Geographic dispersion.
11. Economic conditions.
12. Political conditions.
13. Military conditions.
14. Customer needs.
15. New products.

Despite careful planning and obvious benefits, any change is likely to meet opposition from some source. For example, a change that looks very simple and logical on the chart may encounter strong opposition because it threatens status, security, or pleasant working relationships. The human tendency is to seek stability and resist change of reference points, so that there is a constant battle to overcome the inertia of the human being and the familiar.

For these reasons, organization structures tend to become static, even in the face of organizational malfunctions and pressures for change, and the manager must be constantly alert to these signs. The earlier a problem is foreseen, the more thoroughly management can plan for minimizing its consequences for the organization, and the wise manager does not wait for a crisis to devote attention to organization planning.

ORGANIZATIONAL ASSESSMENT AND PROBLEM-SOLVING

An organization study must have a statement of purpose to provide direction and focus and serve as a mission statement for the study team. This will commonly take one of two forms:

Organizational Assessment -- For our purposes, this can be described as a broad survey of an organization or element to evaluate strengths and weaknesses as the basis for a general improvement in its performance. The assessment may or may not include specific recommendations for solving problems that are identified.

Such a statement of purpose might read:

> "The organization structure of the Directorate of Supply is to be studied to determine if any changes would be advisable to improve coordination, control and responsiveness to user needs."

The assessment approach may also be used to check for compliance with organizational requirements mandated by regulations.

Problem-Solving -- Where the client for the study has identified a problem situation and desires help in solving it, the statement of purpose for the study should express this. A problem-driven study will be expected to produce specific recommendations for solving the problem.

This type of statement of purpose might read:

> "Responsibility for providing advice to management on organization structure, work flow, procedures and similar matters is now assigned to a Management and Procedures Branch in each of the major directorates. This has resulted in duplication of effort, higher costs, and delays in coordinating inter-directorate efforts. This study will analyze the separate elements and recommend whether consolidation into a single, central element would provide a net benefit to the organization."

When a study is focused on a specific problem or set of problems, the analyst should begin to develop information which will serve to further identify and define the problem(s).

PROBLEM IDENTIFICATION AND DEFINITION

Initially the problem definition may represent only one manager's viewpoint and thus be limited by that person's organizational orientation. However, subsequent analysis and revision can bring to the problem statement the total organization viewpoint and broad solution guidance necessary for significant and meaningful improvement.

An adequate problem identification and definition statement should cover, but not necessarily be limited to, the points that follow. When properly prepared, this statement will:

1. Cover all major aspects of the problem.
2. Aid in analysis.
3. Provide guidance for use during the development and evaluation of solutions.

Problem Symptoms and Causes

Problem symptoms are those undesirable characteristics of a work situation which are the visible indicators of a problem. These are the factors which many managers, and analysts, sometimes designate as problems rather than the real causes that may be producing these symptoms. Some typical symptoms of organizational problems are empire building, buck-passing, poor coordination of activities, delays in making and carrying out decisions, excessive conflicts between line and staff, excessive layering of management, bottlenecks, high costs, and excessive personnel turnover and sick leave rates.

There are numerous causative factors which could be producing the above symptoms. Some causes which could be attributed to improper organization are: poor functional alignment, vague delineations of authority and responsibility, too narrow or too wide span of control, excessive degrees of centralization or decentralization of authority, and poor utilization of skills.

Some causes may lie completely outside the organization's control, such as: cyclic work, economic conditions, political conditions, nature of the mission, or budgets.

The objective in problem identification and definition is to recognize symptoms for what they are, symptoms, and then probe for real causes of problems. Quite often there is a considerable distance between symptoms and the real causes. Time should be devoted to curing causes, not fighting symptoms. A good problem statement will include a statement of symptoms and attempt to identify the related causes. Further examination of facts may indicate more or different causes, requiring modification of the original problem statement.

Dimensions of a Problem

In establishing the dimensions of a problem an attempt is made to isolate the area in which the problem is thought to exist, and indicate the size and extent of the problem. This could be approached by identifying the areas involved. Where do the symptoms and causes begin; how far do they extend? What organizational elements and positions appear to be concerned? What are the quantitative measures, if any, of the symptoms noted, also of the causes related to these symptoms?

In developing answers to the above questions the dimensions of the problem area are established. Also, in thinking through these answers a much better perspective of the problem in relation to other problems and the organization as a whole is formulated.

Priority Factors

The priority factors are those characteristics which are to be emphasized in the solution of a problem. They are made a part of the problem definition in order to clearly establish guidelines for acceptable solutions.

Typical priority factors are: operating with reduced personnel, pin-pointing responsibility, better utilization of critical work skills or machine time, greater flexibility, increased quality (error reduction), better coordination, improved control, and such intangibles as safety. These factors must be ranked as to priority of preference in the problem solution.

Limiting and Restricting Factors

In the development of the solution to any organization problem, there are practical factors which must be considered, and many times they prescribe limits beyond which solution concepts and approaches should not or cannot be carried. These factors can be generally classified as regulatory requirements, local managerial preferences, and feasibility restrictions.

Regulatory requirements are those organizational elements, structures, etc. made mandatory by specific instructions from higher authority outside the organization.

Local managerial preferences are those organization structures, systems, proceses, etc., which local managers have determined to be desirable in meeting their responsibilities.

Feasibility restrictions are those factors which place practical limits on the problem solution because of their nature, the environment in which the organization exists, or the timing of the problem. Typical feasibility restrictions are: costs of proposed change, the investment in equipment presently utilized in the problem area, potential savings, personalities involved, and the priority of the problem area.

PLANNING AN ORGANIZATION STUDY

The organization study requires a specific and clear-cut plan of the work to be done. Such a plan (often referred to as the "Plan of Action" or POA) provides guidance for the performance of the study, and documents the agreement between the study team and the client. Because of the need for this basic direction, the requirement for a plan cannot be overemphasized.

The plan of action should be a joint effort of the study team chief and the manager; the former will propose approaches, techniques and resources, and the latter will consider their adequacy and the timing relative to minimizing disruption of his operations. The topics in the plan should include:

1. Background -- The contacts and events that led to the initiation of the study.
2. Purpose of the study -- As described in the "statement of purpose" (assessment or problem-solving) previously discussed.
3. Scope of the study -- Identifies the organization, systems, locations, etc. to be covered by the study, e.g., "The study will include the directorate, division and branch levels of the Supply Directorate at this installation and also the separate storage facility at...."
4. Objectives of the study -- Describes the output of the study, e.g., "The team will recommend an appropriate organization structure, including mission and functions statements, through the division level."
5. Assumptions -- May be needed to fill in gaps in our knowledge so the study can proceed, e.g., "It is assumed that the size of the work force has stabilized at the current level and the organization structure will be designed accordingly."
6. Methodology -- The approaches, techniques and tasks which the study team will use, e.g., "All directors and division chiefs will be interviewed personally, and a questionnaire will be distributed to a random sample of one third of the rest of the work force."
7. Resources and schedule -- Describes the makeup of the study team (personnel and skills), computer, clerical and other support needed, travel costs, etc. The schedule shows work activities leading to the due date of the study, usually in bar chart form by weeks.

After the plan is approved by the team chief and the manager, the study team should be established in accordance with the plan. An alternate to the chief should be designated to provide continuity in the event the chief is not available throughout the study.

Listed below are suggestions for utilizing major sources of information that may provide inputs to the Organization Guidelines (Section III). The problem identification and definition discussed in the preceding article will indicate areas where further exploration is necessary, and this should be programmed into the study plan:

1. Review the current organization statements and organization structure and, if available, the reasoning behind the establishment of the current organization.
2. Identify the management goals and policies relative to the organization to be studied.
3. Review the procedures used to communicate these goals and policies to the operating officials.
4. Analyze the problems and results of previous organization studies.
5. Understand the operating procedures and work flow and their relationship to the current organization structure.
6. Review the management information provided by the data or cost collection system to be aware of the workload and cost data available to operating officials.
7. Secure actual and anticipated workload data by organizational element and note whether workload and organizations are in balance.
8. Review the job sheets of key positions.
9. Check written delegations of authority, responsibility, and accountability to see if they are specifically "nailed down".
10. Review regulations and their requirements in relation to the organization structure.
11. Note actual practices, e.g., centralization vs. decentralization, and their relationship to the management goals and policies.
12. Review skills, actual positions, and authorized positions by organizational elements. This will include a study of the span of control.

13. Note current resources and the controls over them employed by management.
14. Attempt to identify informal influences that are affecting the formal organization structure.
15. Establish points of contact with the organization to be analyzed.

Proper planning will enable the analysts to identify their information needs and to ask valuable questions during the study.

INTERVIEWING IN ORGANIZATION STUDIES

The interview is one of the principal methods in organization studies for collecting facts about the situation. However, the interview also has other objectives. More subtle but equally important objectives are selling the idea of progressive improvement and acceptance of a possible future change, and collecting suggestions from people actually managing or performing the work. These objectives are realized by providing the interviewee with perspective of his activity in relation to the total problem area and identifying him with the solution through contributing suggestions and ideas.

The general plan of an interview is tailored to the specific purpose and to some extent to the subject of each individual interview. Managers usually provide summary information of their areas, leavin more detailed data to be supplied by their subordinates. Workers' interests in the problem area usually center around their individual roles and the possible impact of any change on their "total income" (the sum of the financial and emotional factors). The managers' interests center in the roles of their assigned managerial responsibility in the operations except in the case of their personal participation in the area where their interests are quite similar to the workers'. The approach should always be through authority channels with advance information regarding time, subject, and materials that are likely to be discussed.

Phases in an Interview

For discussion purposes, the interview process can be divided into "planning," "opening," "discussion," and "close." Each of these phases is separate; however, there must be a smooth transition in the last three during the actual conduct of the interviews. Each of these phases will be covered separately in the following paragraphs.

The planning phase attempts to insure that the maximum benefit is realized from the interview itself. The analyst should decide on the specific types of information needed and the major points to be covered. The major questions may be sent to the interviewee ahead of time. The analyst should be prepared to ask a number of direct questions and get the desired information in a minimum of time; it helps greatly to prepare by developing a working knowledge of the functions performed in the element and the specialized terminology used.

The interviewee's reaction may range from outright hostility to over-eager cooperation. The analyst must be prepared to handle either extreme and attempt to achieve as many of the objectives as possible through an approach that is friendly, non-critical, sympathetic of the interviewee's problems, objective and respectful. Such terms as "efficiency," "straighten out," "reorganize," "your problem" should be avoided. The interviewee should always be recognized as having superior first-hand knowledge of operations, that personal comments and ideas are useful and desired, and that as a result of the interview, some aspect of the problem area is going to be improved. The analyst should prepare a standard, carefully-worded statement of the problem area to be used in all interviews. Notes of the interview should be taken to insure minimum omissions and good organization of the questioning process. The time of each interview should, as far as possible, suit the convenience of the interviewee and should not exceed one hour in length.

The opening phase in the interview should start with who you, the analyst, are and your organization. This should be followed by a statement defining and detailing the problem. The solution of the problem is always a joint undertaking in which the participation of the interviewee is desired. The role of the interviewee in the problem area is reviewed to provide perspective and then the type of information desired is discussed. Be sure to present some general information on how the information you get will be used. If the interviewee is tense or hesitant, offer to check back when his information has been incorporated in the documentation of facts. Also, some brief remarks on a non-problem related subject eases tension

The majority of the actual interview falls in the discussion phase. A sample approach follows, but it should be remembered that the line of questioning and discussion must be tailored to the specific situation:

1. What do you consider to be the mission of your organizational element?

2. What are the objectives of your organizational element in order of importance?

3. What do you consider to be the problem areas in the present organization? (Consider the organizations above, below, and laterally.)

4. What rules, regulations, policy statements, etc., govern the way you are organized?

5. Are there any programs that should be getting greater emphasis than they are in the present organization, both within and outside your own element?

6. What type things would you like to do that your present organization doesn't readily accommodate?

7. What do you consider major problems of the organization now? What organizational changes would you recommend to alleviate these problems?

8. Do you consider your present organization flexible in that it can add new programs, projects, and people with a minimum disruptive effect on the present work effort? If yes - Why? If no -- What organization changes would increase flexibility?

9. List any duplication or similarity of effort you are aware of between elements of the present organization. Should this redundancy be eliminated? If so, what organization change would you recommend to accomplish this?

10. What were the last few organization changes made in your element? What was the rationale behind these changes?

11. Are there any organization changes that could be made outside your element that would assist you in meeting your objectives?

The analyst must be a good listener but remain in control of the interview. A good ratio is 85% listening to 15% talking. All of the rules of good listening, such as mentally think ahead, evaluate and summarize, and review, apply here. Be on guard not to criticize personnel, be unduly critical of the present organization, or commit yourself to accept and use ideas or suggestions. When discussion gets away from the problem area, draw it back. Attempt to avoid involved discussion of rare and exceptional occurrences. Be sure to probe for the interviewee's suggestions, views of the problem and ideas for solution, and be sure that the notes are detailed enough to give credit for ideas that are incorporated in the final solution.

The close phase of the interview is important also. The objective here is to effectively terminate the interview and proceed. Review the data gathered to be sure you understand and the interviewee has a chance to add any additional data. The door should be left open to call back and get additional assistance if necessary. Be sure to note names, titles and telephone extensions. Express appreciation for assistance and cooperation as you leave.

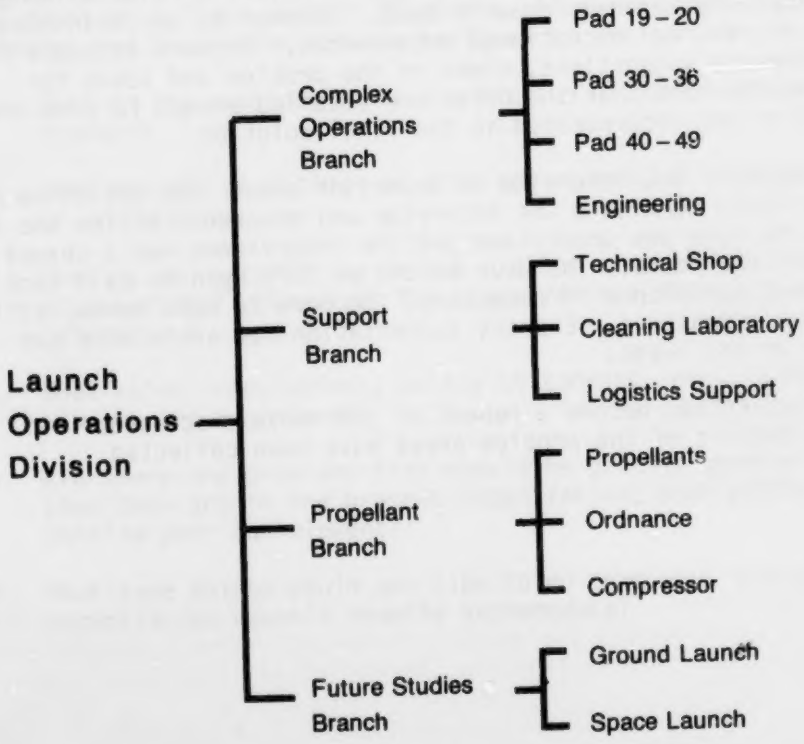
Subsequent interviews become a repeat of the above discussion until all appropriate details of the problem areas have been collected.

ORGANIZATION CHARTS

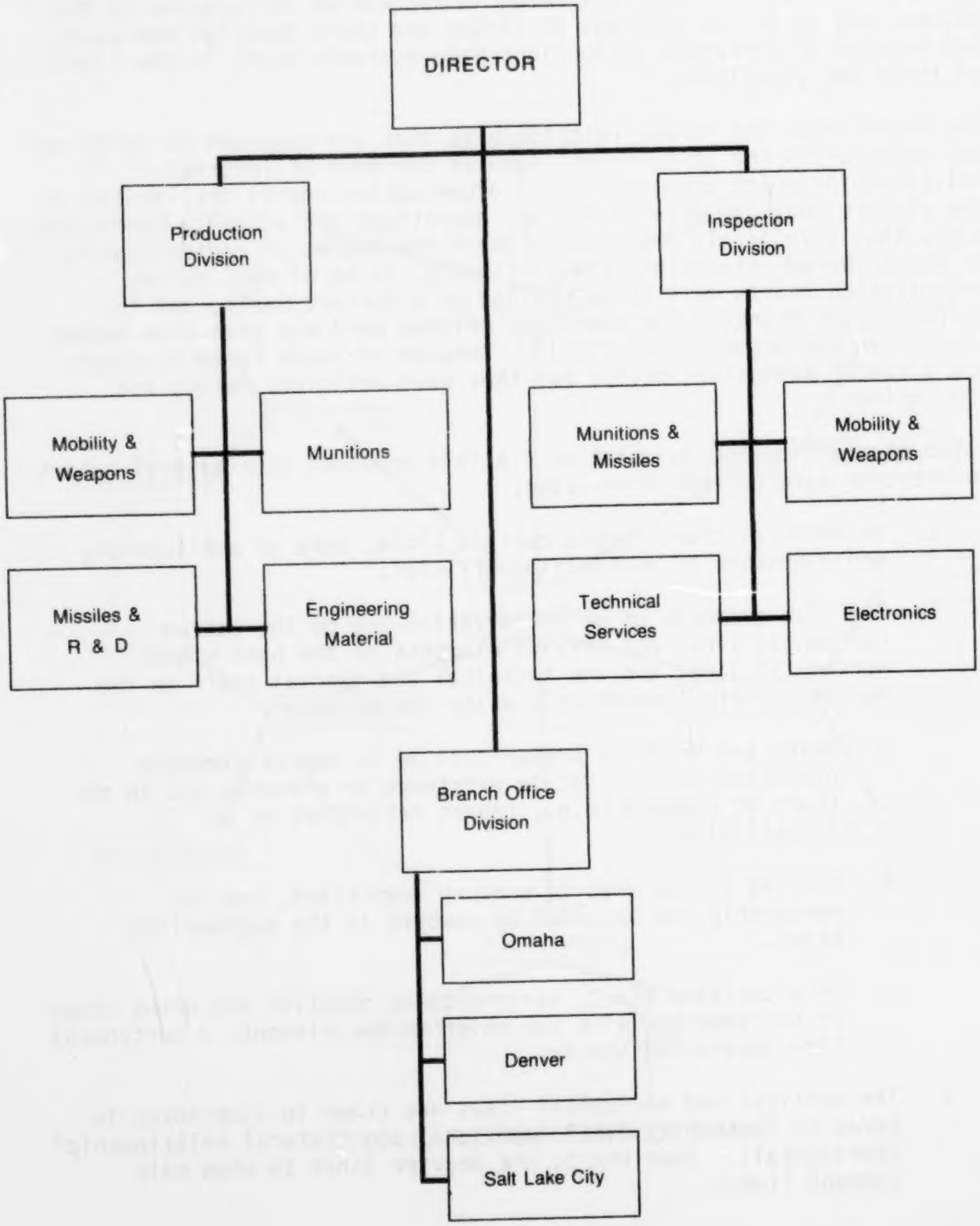
Organization charts are widely used as aids in discussing organization structures; a chart provides a convenient overview of the parts and their relationships in the hierarchy. In addition, preparing charts helps to visualize and clarify ideas during analysis and can indicate areas that call for closer review as possible sources of weakness.

An organization chart is a graphic portrayal of certain aspects of an organization. These charts vary greatly in both format and level of detail shown. The basic form is the structural chart, which is a simple graphic representation of the vertical and horizontal arrangement of the components of an organization. A refinement of the basic structural chart is the functional chart, which adds brief statements of the functions of each activity. The position or manning chart adds to the structural chart the positions, titles, names and telephone extensions.

The structure is customarily portrayed with higher management at the top, but to overcome difficulties of area covered by the chart of a large structure, the portrayal is sometimes made with top management at the left and subordinate levels of structure in horizontal lines to the right, as in this example:


Launch Operations Division
Complex Operations Branch
Pad 19 - 20
Pad 30 - 36
Pad 40 - 49
Engineering
Support Branch
Technical Shop
Cleaning Laboratory
Logistics Support
Propellant Branch
Propellants
Ordnance
Compressor
Future Studies Branch
Ground Launch
Space Launch

Another device is also used to save space with charts drawn in the customary form downward from the top: some of the positions may be shown in groups or layers instead of being spaced horizontally. For example:


DIRECTOR
Production Division
Inspection Division
Mobility & Weapons
Munitions
Missiles & R & D
Engineering Material
Munitions & Missiles
Mobility & Weapons
Technical Services
Electronics
Branch Office Division
Omaha
Denver
Salt Lake City

There is danger that too much may be read into the chart. All too frequently, charts are found being used as the only medium for conveying a proposed pattern of organization and for briefing the managers concerned as to how their part in the pattern is intended to operate. But the interpretation of a chart can be significantly different for each person that reads it because of differences in the assumptions as to the meanings of titles and short descriptions used, and because of different assumptions made by individuals in the light of their own experience.

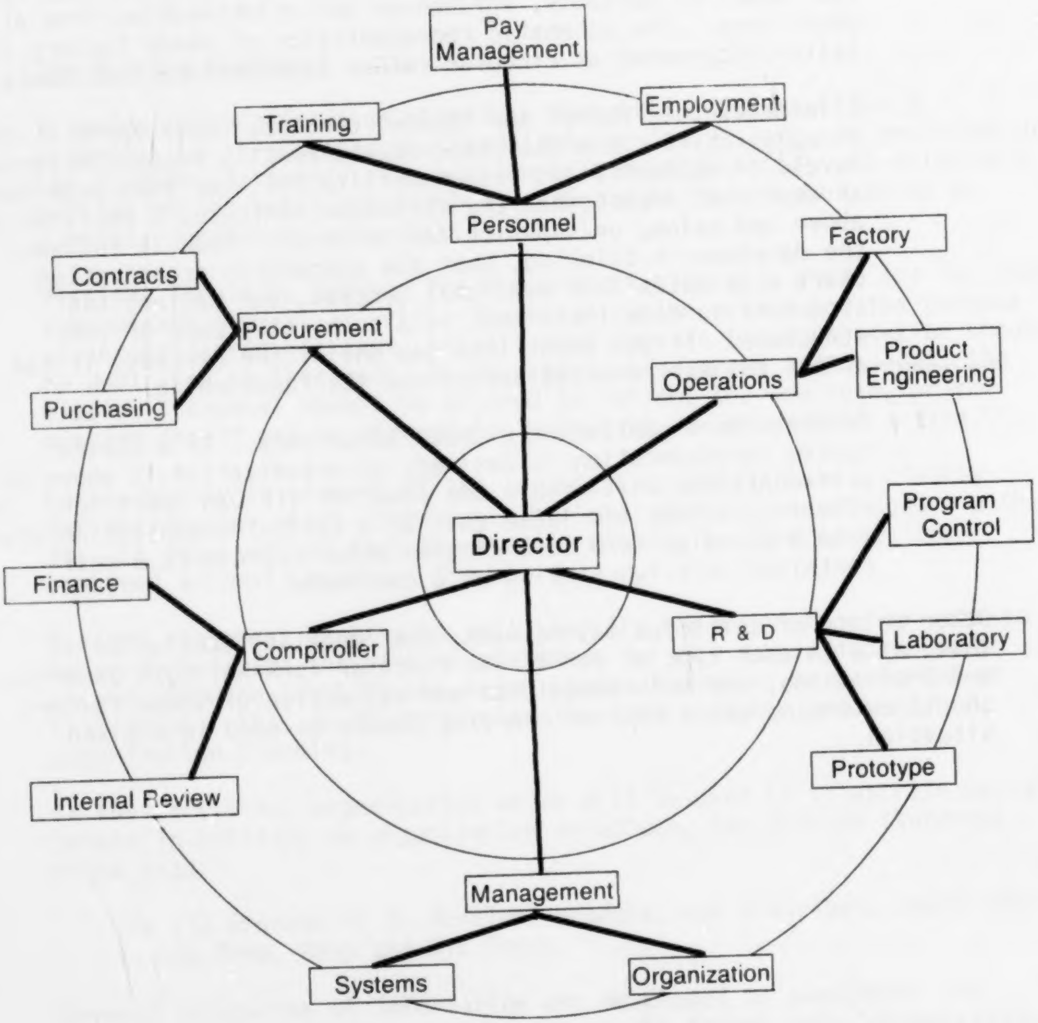
The chart shows the formal relationships that are supposed to exist but not necessarily the actual ones, such as the host of informal relationships which develop. Also, organization charts are limited in the picture they can give of the way operations are actually conducted; e.g., they give little information about the degree of centralization or about shared responsibilities. Finally, to be of real value, organization charts must be maintained on a current basis, and the difficulty of changing the approved, printed word may even slow needed changes in the organization itself. Because of these factors, charts are a useful managerial device but they have definite, recognized limitations.

Although chart-making is a rather flexible process, some general guides and customs have emerged from usage;

1. An official chart should carry a title, date of publication, and signature of authorizing official.
2. The line elements of an installation are on the bottom horizontal line, the service elements on the next higher horizontal line, and the technical and special staff on the horizontal line immediately below the director.
    a. Boxes are drawn in broken outline to depict elements projected but not yet in existence or elements not in the chain of command (e.g., tenant activities at an installation).
    b. Circles may be used to portray committees, and the membership can be coded by numbers in the appropriate boxes.
    c. On a position chart, assistants or deputies are often shown in the same box with the chief of the element, a horizontal line separating the two.
3. The vertical and horizontal lines are drawn to link boxes in terms of "authority over" (vertical) and "lateral relationship" (horizontal). Some charts use heavier lines to show main command lines.

4. Functional or advisory relationships may be shown by dotted or broken lines. Where special lining is used, a key or note of explanation should be added to the chart.

Considerable thought has been given to ways of improving organization charts. One such effort has been to work on the basis of a circle.


Pay Management
Employment
Training
Personnel
Factory
Contracts
Procurement
Product Engineering
Operations
Purchasing
Program Control
Director
Finance
R & D
Laboratory
Comptroller
Prototype
Internal Review
Management
Systems
Organization

CIRCULAR ORGANIZATION CHART

The purported advantages of the circular structure are:

1. Provides a better representation of the dynamics of personal relationships as they exist in an organization structure. The concentric organization chart represents dynamic, flowing relationships which proceed and are directed toward the center or inwardly, while at the same time there is a flow which proceeds and is directed from the center outward. Characteristically, the functioning of any group or organization centers "around" individuals in a group, whether managers or not, feel the impact of contacts, influences and relationships from all directions. The schematic representation of these factors is better diagrammed as circular rather than vertical-horizontal.

2. Eliminates the "above" and "below" concept. Developers of the circular chart claim that individuals readily recognize various levels of authority and responsibility but that they experience an emotional impact when the structure indicates a position of above and below, or superior and inferior. Then it follows, in the developer's thinking, that the concentric organization chart eliminates this emotional concept, and designs the structure so each individual is a supporting part of the structure. If you break into any one of the circles, it can affect the entire organization and its functioning.

3. Presents an organization without loose ends. If a closed system representation is desired, an organization is shown as a self-contained unit within the spher of its own operation. In effect it brings the loose ends of a typical organization chart into a circular form in a diagram which represents a self-contained unit functioning on a continuum

Other points of criticism may be made; the important conclusion is that, as with each type of chart, the circular form has both benefits and limitations, and the recognition and evaluation of these factors should determine which type of charting should be used in a given situation.

ORGANIZATION GUIDELINES

Considerable background information must be accumulated in order to effectively plan an organization. Properly structured, the information builds a framework or boundaries to guide the planning process, and indicates the criteria which the organization structure should meet in terms of goals to be reached or problems to be corrected.

The Mission Statement

Planning the organization structure must begin with what the organization is supposed to accomplish, or its mission, as described in the mission statement. The mission statement describes and delimits a portion of the total job which is assigned to that organization or element, and serves as a charter for it.

Missions should be defined for the organization as a whole and for each subordinate element as well. The organization exists for the purpose of accomplishing missions, and all work done in the organization should be dedicated to this end. As an organization grows and changes, the mission statement should be altered to reflect the new role, or the mission itself may be changed to inaugurate new courses of action.

Each subordinate element of the organization should have a clearly defined mission which is part of the total mission and consonant with it. It is essential that the overall mission be covered by the combined accomplishment of the parts.

A sound statement of mission will identify the major kinds of work to be performed, and the mission statement for any subordinate element should likewise identify the major kinds of work to be performed at that level. This is of particular importance in the process of organization planning.

In the fictitious organization which will be used to illustrate certain points in building an organization structure, the mission statement might read:

> The XYZ Arsenal is to develop, produce, and distribute small arms to the Army, Navy and Air Force.

Several categories of information are developed to supplement the guidance from the mission statement and are formed into "Organization Guidelines," which are explained on the following pages.

It is essential to recognize that the steps identified in the following pages for "Building the Organization Structure" are not a mechanical process which automatically produces a right answer. Rather, they comprise a logical, orderly approach tempered by the judgment, skill and experience of the analyst and the manager who must make the final choice, and adapted to the existing and anticipated conditions of the situation.

Building the Organization Structure -- Step 1: Organization Guidelines

> Develop information about the organization's purposes, objectives, problems and restrictions which will give direction to the planning and identify criteria which the organization structure must meet.

Using the wide variety of information sources available -- personal interviews, management surveys, planning documents, regulations, etc., -- the Organization Guidelines are built. To help structure this framework, specific categories of information in the Organization Guidelines, together with an example from the fictitious XYZ Arsenal, follow.

MISSION STATEMENT: Define clearly and concisely the mission of this organization or element.

Example: The XYZ Arsenal is to develop, produce, and distribute small arms to the Army, Navy and Air Force.

POLICIES AND OBJECTIVES: Goals and decisions established by the planning processes. Where possible, they should be specific as to cost, time and quality.

Example:
1. Operate at minimum cost consistent with sound managerial practices.
2. Hold slippage on schedules and deadlines under 5 percent.
3. Make special effort to meet customer needs.

PRIMARY DIRECTIVES: Pertinent regulations, manuals, internal operating policies and other documents containing organization structure.

Example: Organizational structures subordinate to this Headquarters will be organized in a functional pattern unless an exception is specifically authorized.

RESTRICTIONS, CONTROLS, AND LIMITATIONS: Courses of action which are not practical both because of formal restrictions and informal taboo's; things which cannot be done, or perhaps must be done, in the organization structure; environmental, physical and personnel limitations.

Example: 1. Manpower and grade ceilings set by higher headquarters.

2. Economic production runs of at least 15 workdays.

3. Air shipment to be used only for emergencies, with maximum batching of orders.

RELATIONSHIPS AND COORDINATION: Organizations and offices with whom coordination or cooperation is necessary.

Example: Higher headquarters, staff offices, other arsenals, customers, suppliers, labor organizations, the community.

AREAS OF EMPHASIS AND/OR TYPES OF SPECIALIZATION: New or critical programs, functions or areas of effort marked for special attention.

Example: 1. Cost reduction program.

2. Application of PERT technique.

3. Executive and employee development programs.

HISTORICAL BACKGROUND: Previous organizational patterns and their results, persistent problems, notable strengths or weaknesses, experiences of similar activities, habits and expectations of personnel.

Example: 1. Original pattern still in use.

2. High executive turnover.

3. Slow response, inflexibility.

CONSIDERATION OF COST: The financial position and policies of the organization; some patterns of departmentation may be more costly but may yield improved performance; effect of span of control and number of levels.

Example: 1. Reduction of overhead costs

2. Cost of an organization change vs. savings through improved performance.

ADDITIONAL QUESTIONS TO BE ANSWERED: Additional items of information to be sought by further study or inquiry.

It is readily seen that the Organization Guidelines require careful research, thorough analysis, and often some detective work. Experience indicates that building an accurate set of guidelines may be the most difficult part of an organization study -- and may be the most important as well.

DEPARTMENTATION

A sound organization structure is not a preconceived blueprint to be imposed upon every organization situation. As noted in the description of the contingency approach to organizing, the correct structure is always a matter of circumstance, and these special conditions have already been noted in the Organization Guidelines. The process of departmentation concerns much more than the mapping of the organization; it is the arrangement of the advantages of a particular structure to attain the goals of the organization.

Departmentation is the alignment of the pieces of work into manageable groupings for the purpose of administration. To do this, it is necessary to identify the kinds of work needed to accomplish the mission, consider the possible groupings of this work, and then compare the relative merits of the groupings in relation to the criteria of the Organization Guidelines.

Building the Organization Structure -- Step 2: Identification of Work

> Prepare a list of the kinds of work needed to accomplish the mission.

The mission statement will normally identify the major types of work required to accomplish the mission, and the list will be based upon an expansion of these. The breakdown of work activities becomes apparent as the analyst gains increased familiarity with operations by visits, interviews and discussions, and from directives and other documents.

Basic decisions and the initial line organization design will be determined from these operating functions. Care should be taken to limit the listing to line or mission activities only; the various supporting activities will be considered later.

The listing of the work activities is particularly revealing when the mission statement is not specific as to functions, perhaps directing "material and technical support" without specifying what is involved.

Example: The mission statement of the XYZ Arsenal identifies the major functions as "develop, produce, and distribute." The kinds of work required would include laboratory, design, construction of models, foundry, machining, heat treating, assembly, storage, packing, and shipping.

Building the Organization Structure -- Step 3: Possible Groupings of Work

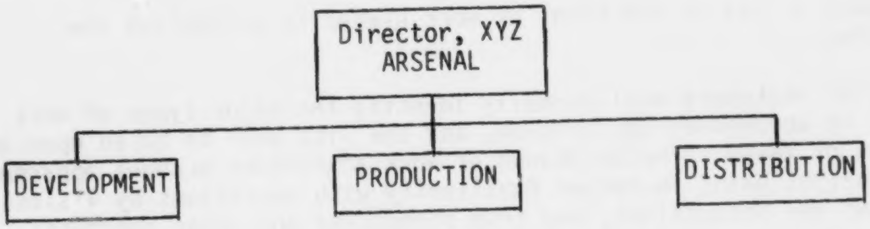
Identify the possible groupings of the various kinds of work around the major functions, products, geographical areas, and customers of the organization.

The kinds of work identified in Step 2 can be put together in several possible ways, of which the following four are dominant:

1. The work can be organized on a functional basis, according to the major types of work being done.

   Example: The major types of work at the XYZ Arsenal, development, production and distribution, may serve as the focal points for the activities needed to accomplish them with laboratory, design, and construction of models under development; foundry, machining, heat treating and assembly under production; and storage, packing and shipping under distribution.

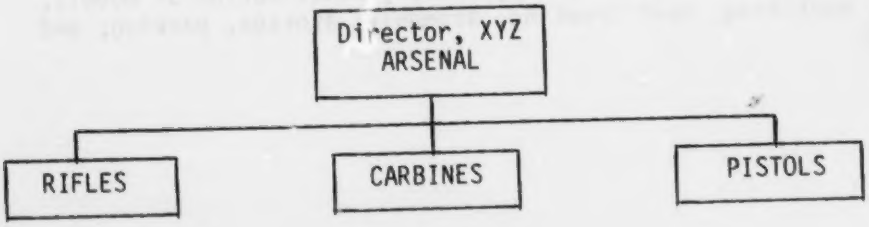
FUNCTIONAL



2. The work can be grouped around the various products involved, with each product having assigned to it the activities required for effective operations.

   Example: The major products of the XYZ Arsenal are rifles, carbines and pistols. The work of laboratory, design, construction of models, etc., listed in Step 2 can be assigned to each product, making it more or less self-contained as an operating entity with its own facilities.

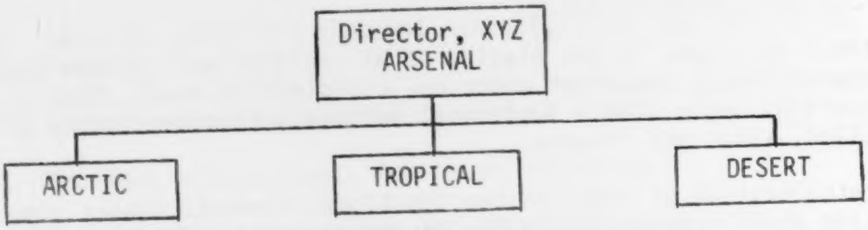
PRODUCT



3. The work can be grouped to focus on a particular geographic area, with work activities assigned to fill the needs for a specified area. Use of the geographic grouping is not limited to multiple locations, but may occur within a single location as well.

   Example: If the territory served by the XYZ Arsenal breaks logically into arctic, tropical and desert areas, the design, assembly and other work listed in Step 2 can be assigned to each of these respective areas, making each a relatively complete operation.

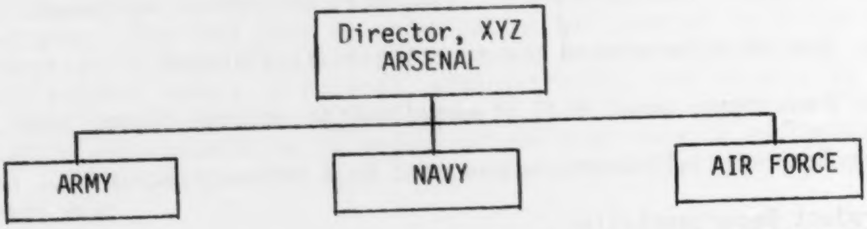
GEOGRAPHIC



4. The work can be grouped to serve a particular type of customer.

   Example: The Army, Navy and Air Force are identified as the customers of the XYZ Arsenal, and the work activities from Step 2 could be assigned to give a complete range of operations to each customer.

CUSTOMER



It is readily seen that facilities are divided or duplicated for the product, geographical, and customer patterns in order to provide the required operations for each product, area, or customer.

With these possible groupings of work available, how do we choose between them?

Building the Organization Structure -- Step 4: Departmentation Analysis

Analyze the characteristics of the patterns in relation to the objectives, problems and other criteria identified in the Organization Guidelines.

Experience with these four patterns has shown that they tend to exhibit certain characteristics in practice. By matching these known characteristics against the criteria which the organization structure should meet as stated in the Organization Guidelines, a sound basis is set for choosing the pattern which offers maximum advantages and minimum disadvantages.

1. Functional Departmentation

Functional structure is the placing of all related work of one kind in one organizational component under one coordinating head. Most organizations begin with a functional pattern, often consisting of production, sales and finance.

The centralization of tasks in the functional elements causes some confusion about responsibility for the end product. There may be a jurisdictional problem when a situation encompasses two or more functional areas, each of which may claim the same responsibility or, conversely, may "pass the buck" to the others. Some of the characteristics of the functional pattern are:

A. Emphasis on the function (or kind of work).

B. Permits specialization and development of skills.

C. Requires least amount of investment in capital equipment.

D. Coordination within the function is facilitated.

But:E. Requires a great deal of coordination at next higher level.

F. Over specialization -- can lead to a narrow viewpoint.

2. Product Departmentation

There is a limit to the number of products that can be handled by a functional organization. Where a variety of products of different types must be manufactured or distributed by the same organization, some are certain to be overemphasized, while others are slighted; a product structure tends to counteract this favoritism. Many organizations which "outgrow" the functional pattern find that the product pattern meets the new needs.

The product structure establishes each product or family of related products as relatively autonomous, integrated units within the overall framework. This unit is relatively self-sufficient, including most of the activities necessary for effective operations. The product structure is said to be multifunctional, and is illustrated by the divisions for automobiles or appliances set up by large manufacturers.

Some of the characteristics of a product pattern are:

A. Promotes coordination of activities connected with the product.

B. Provides a framework for executive development.

C. Takes advantage of specialized product knowledge.

D. Makes it easier to pinpoint responsibility for results at lower levels.

E. Secures special attention to product line.

F. Provides a sound basis for decentralization.

G. Permits ease of expansion and diversification.

But:H. Can increase cost by duplicating facilities and overhead.

I. Requires generalist managers who may be difficult to obtain, at least initially.

3. Geographic Departmentation

The primary consideration in geographic departmentation is the defining and differentiating of responsibility in reference to certain locational features. The fact that an organization has several locations does not necessarily mean that it has geographic departmentation; the geographic pattern refers to control, administration, and service to an area, not just dispersion of facilities. It is most common to find geographic departmentation in organizations that service customers spread over a considerable area. Some characteristics of geographic patterns are:

A. Built around a geographic area.

B. Can apply an intimate knowledge of local conditions of a special nature.

C. Provides a sound basis for decentralization.

D. Provides a framework for broad executive development.

But:E. Can increase cost by duplicating facilities and overhead.

F. Overconcern with local problems.

G. Difficult to secure uniform practices between areas.

4. Customer or Service Documentation

The customer pattern has been called by some authors the service pattern while others differentiate between customer and service as types of patterns. As the name indicates, this is grouping the functions in an arrangement to better serve or appeal to a specific category of people.

There are a number of examples of customer pattern in the Federal Government. Specialized and detailed knowledge is the primary advantage of having bureaus for veterans, Indians, children, farmers and small business.

The customer pattern probably gets less emphasis within governmental operations than in private industry. The pressure of sales, plus customer satisfaction, gives added emphasis in non-governmental activities.

Some of the factors recognized in the customer pattern are:

A. Built around a particular clientele.

B. Takes advantage of specialized and detailed knowledge of customers.

C. Provides for coordination of all activities related to clientele.

D. Assures adequate attention to problems of the customer.

But:E. Can increase cost by duplicating facilities and overhead.

F. Creates pressure groups in behalf of categories of customers.

All four patterns can be used at the top level of an organization and/or for subordinate elements as well. Beyond the functional pattern, the reader will perhaps have noted that there is a marked similarity of the logic for product, geographic and customer patterns, but each shows varying emphasis and characteristics which make different patterns appropriate in different situations. The duplication of facilities and operations in these three patterns is most usually suited, at the top level, to large and highly diversified organizations. The product pattern is frequently found there, with automobile or appliance divisions as an example. The product pattern may also be found within an element, as in a purchasing department divided according to the various products to be obtained. The geographic and customer patterns are less frequently found at the top level of an organization but are popular at lower levels, as in a sales department organized into geographic areas or into customer types such as sales to Government units.

It should be noted that these major patterns reflect the dominant characteristics of an organization or element; they show where the emphasis has been placed, but leave difficult questions of exactly what activities should be included in each element. It should also be noted that few organizations follow a single pattern throughout, although it may be desirable to have consistency among elements at the same level which report to the same superior.

5. Minor Types of Specialized Usage

There are a number of specialized patterns that are useful to individual organizations or specialized situations. Some of these types include:

> Alphanumeric -- Simply dividing work that falls into a certain alphabetic or numeric sequence. Dividing civilian personnel folders A through L or dividing payroll by payroll numbers 0 through 500, etc., are some examples of this pattern.
>
> Time or shifts -- Departments may be similar in every way except the working hours are different.
>
> Equipment -- The centralized printing facilities, automatic data processing, computer controlled machinery, forge and foundry would be types of equipment patterns. Such departmentation is necessary because of specialized skills, size, difficulties in supervision, centralization or other related factors.

The analyst now has the task of selecting the right pattern, or combination of patterns, that will begin to build a structure to meet the objectives and requirements of the organization. The determination of the most acceptable type of structure is usually a decision of the top executive but the analyst should provide adequate information and possible alternate courses of action to facilitate the final decision.

An effective means for uniting and displaying the various types of information which have been developed, and for analyzing the patterns in relation to the Organization Guidelines, is the Departmentation Work Sheet.

A reduced sample work sheet, utilizing the examples developed for the XYZ Arsenal, follows. The format includes:

Step 1:		
	Mission Statement	Top, left center
	Organization Guidelines	Lower left margin

Step 2:	Identification of Work	Top, left corner
Step 3:	Possible Groupings of Work (Patterns)	Upper center
Step 4:	Departmentation Analysis	Body of Chart

The departmentation analysis (Step 4) is shown for the Policies and Objectives category of the Organization Guidelines. Each requirement in the Guidelines is analyzed in terms of each pattern, and the effect of the pattern characteristics on that requirement is noted, whether good or bad. After consideration of each pattern, horizontal analysis leads to determination of the best pattern for that item in the Guidelines, and the choice is noted on the right under "Basis of Selection." This process continues for each item in the Guidelines until an overall choice is made based on the total analysis. The result should be an objective decision unbiased by the existing personalities and setup which, however, may modify the design when considered later.

Certain points in the Organization Guidelines may not be affected by the choice of pattern, especially for responsibilities normally performed by supporting elements. In these cases, mark the analysis "not applicable" or "staff." Also, the Guidelines should be screened to eliminate duplication of items, to avoid giving the item undue weight in the analysis merely from being considered twice.

Filling out the work sheet does not, of itself, identify the proper pattern for the situation. What it does is (1) force us to recognize and consider all the factors in their relative importance, (2) organize the analysis into a logical approach, and (3) provide a comprehensive document for discussions and future reference. The judgment of the analyst is vital throughout. Weights or values must be considered within the Organization Guidelines, where one objective or problem may be more critical than another. One major advantage may outweigh several minor disadvantages, or vice versa. Rate of growth, its trends and influences, and the ability of structural design not only to absorb expansion but to facilitate growth in an orderly manner is a significant factor. Balance -- of work, of personnel, of facilities -- must be considered as well. And, there is always an allowance for uncertainty.

DEPARTMENTATION WORK SHEET

Listing of Kinds of Work		**Mission Statement**		**Workload Data and Remarks**		**Work Area**
Design Construction of Models Laboratory Foundry Machining Heat Treating Assembly Storage	Packing Shipping	The XYZ Arsenal is to develop, produce, and distribute small arms to the Army, Navy, Air Force		- Rifles - Carbines - Pistols		XYZ Arsenal, Top Level
		(A) Product Pattern	**(B) Function Pattern**	**(C) Geographical**	**(D) Customer**	**Pattern Selection**
		- Rifles - Carbines - Pistols	Development Production Distribution		Army Navy Air Force	Enter Your Selection Here
Factors	**Organization Guidelines**	**Analysis of Functions**				**Basis of Selection**
① Policies and Objectives	Operate at Minimum Cost Consistent With Sound Managerial Practices – Hold Slippage on Schedules and Deadlines Under 5% Cater to Customer Needs	Duplication of facilities likely to create higher cost Emphasis on product and individual responsibility encourage closer attention Attention focuses on product	Lower cost – least investment in capital equipment Coordination problems may lose time Attention focuses on function	Higher cost from duplicate facilities Orientation toward needs of an area may improve service Attention focuses on local problems	Higher cost from duplicate facilities Orientation toward customer needs may improve service Attention focuses on customer needs	Functional Product Customer
② Primary Directives	Organizational Structures Will be Organized in Functional Pattern Unless Exception is Authorized.					
③ Restrictions, Controls and Limitations	Manpower and Grade Ceilings as Set by Higher HQ Economic Production Runs of at Least 15 Work Days; Air Shipment for Emergencies Only; Mix Batching					
④ Relationships and Coordination	Customers Suppliers Higher Headquarters Labor Orgtanizations Other Arsenals Community					
⑤ Areas of Emphasis and Types of Specialization	Cost Reduction Program PERT Technique Executive and Employee Development Programs					
⑥ Historical Background	Original Pattern Still in Use High Executive Turnover Slow Response, Inflexibility					
⑦ Consideration of Cost	Reduction of Overhead Costs Cost of an Organizational Change vs Savings Thru Improved Performance					
⑧ Additional Questions to Be Answered						

PROBLEM NO. 1

Prepare and analyze a departmentation work sheet to determine the top level of line elements for the XYZ Arsenal organization structure.

LINE AND STAFF ORGANIZATION

Line Organization

The "line" organization is the structure charged with accomplishing the mission. The mission statement will usually indicate the major types of work required directly for its accomplishment and the organizational elements performing this work are referred to as "the line".

Elements which help the line elements do their work better by offering advice, assistance, or service, are designated "staff".

In a strictly line organization, the line manager would have complete power within his area. An old-time foreman, for example, might do his own hiring, training, disciplining, and discharging; make his own purchases of raw materials and tools, schedule his work, inspect it, and maintain his machinery.

The advantages of a line organization include:

1. It is simple and its operations are relatively easy to understand.
2. It provides a clear-cut division of authority and responsibility from the highest level in the organization to the lowest.
3. It makes for quick action.
4. Discipline is readily maintained.

The disadvantages are:

1. It overloads the supervisors as they must handle coordination and individually possess detailed knowledge in a variety of activities.
2. Being an autocratic system, it may be operated on an arbitrary and dictatorial basis.
3. Operating procedures and methods are usually left to workmen who may be unskilled in such matters.
4. It is difficult to secure uniformity and consistency throughout the firm, as, for example, in personnel policies.

A recognition that simple line organization was outmoded led Frederick W. Taylor to develop the concept of "functional foremanship." It sought to introduce expert knowledge into daily operating performance, using a planned division of labor within the managerial sphere.

The foreman's job was split into eight principal functions, each in charge of a functional boss. There were four shop bosses at the performance level: the gang boss, the speed boss, the inspector, and the repair boss. The other four bosses were assigned to a planning office: the order-of-work and route clerk, the instruction card clerk, the time and cost clerk, and the shop disciplinarian. Each boss was expected to become a specialist and an expert in his particular function and was held responsible for carrying it out. Each worker reported to eight bosses.

Although it provided for the use of expert knowledge, the plan never was successful in its original form, largely for two reasons:

1. Authority was so splintered that the worker at the bottom received conflicting orders--violation of the principle unity of command.

2. It placed a heavy coordinating responsibility upon the manager at the top who could not assimilate the detailed knowledge needed to integrate a multitude of operations.

However, the counterparts of Taylor's functional foremen are to be found in today's industrial organizations. Examples are:

1. The repair boss is the maintenance foreman.
2. The speed boss handles time-study.
3. The order-of-work and routing is in production control.
4. The shop disciplinarian handles personnel matters.

The need for specialization and expert knowledge foreseen by Taylor has become generally recognized. To overcome the disadvantages and shortcomings of the line organization, certain activities are removed from the line managers and placed in separate staff units. Like Taylor's functional foremen, these staff personnel are specialists in certain areas of work. Unlike his functional foremen, these staff personnel usually do not give orders directly to the workers.

The Role of Staff

The increasing size of organizations and the rapidly changing technology tax the human capacities for work and knowledge on the part of the line manager. The line manager is usually so occupied with day-to-day operating problems that there is little time for longer-range planning, careful study and reflective thinking, and for acquiring thorough understanding of new techniques being developed.

The line managers, especially those near the top of the management hierarchy, are likely to find themselves making decisions requiring highly technical knowledge outside their own area of competence. Situations involving legal considerations, taxes, computers, and statistical analyses, are not unusual.

Staff specialists fill these needs, commonly performing such duties as:

1. Gathering and verifying facts and information about managerial and technical problems of concern to the line.
2. Analyzing and interpreting facts and information.
3. Developing and recommending plans, policies, programs, and procedures.
4. Preparing written orders and making arrangements for implementing an approved plan.
5. Assisting in installing and explaining the plan.
6. Watching the plan in operation, following up, and advising line managers on overcoming difficulties that arise.
7. Helping to coordinate the various organizational elements involved, and assisting in control by developing standards, measuring performance through reports and reviews, and recommending corrective action where needed.

These activities fulfill the traditional role of staff, that of advising the line managers, who are free to accept or reject the advice. The title of a staff person performing these activities is likely to be that of "assistant-to" the line manager, or sometimes "executive assistant" or "administrative assistant". Typically, this staff assistant works on problems cutting across organizational lines which cannot be delegated to any of the elements involved; examples would be combining two elements under a single head or evaluating the personnel department's proposal for a new organization-wide executive development program. (It should be noted that these titles indicate staff positions as compared to the title "assistant" or "deputy" in which the position is in the chain of command and the person takes charge in the absence of the superior. The "assistant to" does not take charge.)

Another type of support for the line which is typically performed by separate staff elements may be referred to as "operating services" or "support services".

Certain activities are removed from the line departments and combined:

1. To centralize a function common to all; this relieves each line department of having to perform the function for itself.

2. To cut the duplication of personnel and facilities in several small units.

3. To secure the economy and efficiency which may result from large-scale operations.

4. To secure fullest utilization of specialized personnel and equipment.

5. To increase control or emphasis on the activity.

A staff activity frequently provides both advice and service in its area, and may be delegated the command authority to put its recommendations into practice.

The Relationships of Line and Staff -- Functional Authority

Traditionally, the staff was to render advice and service in support of the line. The line had authority to command, called "line" authority. The staff could only advise and persuade on its recommendations and had no authority to order the line manager to follow them. When a staff specialist's recommendations were accepted by his line superior, the line superior issued the recommendations as an order of his own and backed by his line authority. In this way, the full authority of the line manager remained intact and the subordinates received orders only from their line superior, thus maintaining the unity of command.

The role of staff as strictly advisory has changed radically; it frequently is assigned a limited command authority called "Functional" authority. Functional authority is command authority limited to a particular activity (or function) rather than general authority over an organizational element. The functional authority cuts across departmental lines to govern its activity wherever it may be found. Examples are:

1. The head accountant in the home office prescribes the accounting procedures to be followed throughout the company, in all departments and in the branch plants.

2. The engineering staff sets the specifications and standards to be met in the various steps of the manufacturing process.

3. The personnel department prescribes the methods for on-the-job training of all new employees.

As indicated by the examples, the line executive says "do", and the executive with functional authority adds, "and here is the way to do it."

Put another way, the line decides what is to be done, and the staff decides how. The functional executive can issue instructions (insofar as functional authority has been delegated to him) to the line executive, who directs his subordinates in carrying out the instructions. The instructions go to the line manager one step above the level where the work is to be performed. The orders from the chief accountant, for example, are issued to the branch plant manager, who issues them to the plant accountant and supervises the accountant's performance of the instructions.

There is often an evolution from an advisory capacity to functional authority for a staff specialist. As the line manager develops confidence in the staff, he stops reviewing and approving its recommendations, especially on matters which are routine or are so highly technical that his approval is perfunctory, and delegates to it the authority to determine what should be done and then implement it directly.

The staff may issue its directives in the name of the line manager or commander in order to maintain the appearance of unity of command.

Risks and Conditions for Functional Authority

While the use of functional authority has the important advantage of securing uniformity and consistency of action throughout the organization, there are reasons for using it with caution:

1. A line manager can be swamped with specialized directions from too many functional specialists, and may find it almost impossible to keep up and comply with all of them.

2. The status and effectiveness of the line manager are undermined by heavy use of functional authority; he becomes mainly a messenger, and his subordinates begin to by-pass him and go directly to the specialists for directions.

3. Having functional authority may make the specialist autocratic and inflexible and he may be unresponsive to the needs of local situations, especially if he is located at a headquarters far from the scene of operations.

Functional authority should therefore be granted sparingly, and preferably where: only a small part of the total line job is involved, where technical knowledge is needed, and where widespread consistency of action is needed.

Staff Influence

There are several ways in which staff personnel can impose their ideas on the line without having formal authority.

1. For a highly technical problem, the staff specialist's advice may have to be accepted because the line manager, lacking technical knowledge, has no practical alternative.
2. Staff personnel are usually well educated, and are generally articulate and skilled in persuading others to accept their recommendations.
3. A scientist or other staff person of wide reputation may obtain acceptance by his name alone.
4. Staff specialists are often higher in the management hierarchy than the line executives they advise, and this status carries influence with it.
5. The staff specialist often has close contact with high-ranking line executives and this influence with them can bring discredit or even discipline to a lower-level line manager who challenges the staff.

Conflict Between Line and Staff

Even when the staff specialist has functional authority, any dispute between line and staff is eventually settled by a line executive.

The staff complains, "The line people won't try anything new," and the line complains, "The staff doesn't understand our problems. They are too academic and unrealistic in their solutions." The dispute may be sent upward to a line executive who is the superior of both parties. He will decide whether the staff recommendations are to be imposed on the line. A particular opportunity for conflict arises when a staff unit has functional authority in some area, but also advises in related areas. The authority begins to dominate in all the areas. Far better for all concerned is the avoidance of open challenges and warfare between the line and staff through discussion, persuasion and cooperation.

It should be noted that a staff element, regardless of its authority relationship to the line, will have line authority within itself. Thus, even a strictly advisory staff group will have a chief who is delegated authority over his subordinates in the group.

Advantages and Disadvantages of Line-Staff Organization

In brief, the advantages and disadvantages of the line-staff organization are as follows:

Advantages:

1. Based upon planned specialization, staff brings expert knowledge to bear upon specific problem areas.
2. Staff elements relieve the line supervisor of the burden of knowing details of many management areas.

Disadvantages:

1. There may be confusion as to the possession of authority to act and accountability for results.
2. Friction can develop if line and staff fail to hold common viewpoints.

In analyzing the value of a central service unit, it is necessary to consider particularly the following:

1. Timeliness - centralization may slow the response to user needs.
2. Fluctuation of workload - centralization usually provides better utilization of equipment and personnel.
3. Standardization - is promoted by centralization.

The establishment of staff activities requires a careful analysis. Factors to consider include the type of specialization required, independent checks provided, common work or greatest usage, areas of emphasis, cost, and relationship to line.

Building the Organization Structure - Step 5: Staff elements

> Prepare a comprehensive list of activities needed to support the line; group these into logical organizational elements; confirm or revise these elements by analyzing them in terms of the factors considered in selecting staff activities.

Some of the activities necessary to assist and support the line (and other staff) elements are fairly standardized from long experience and acceptance. Others will be established to meet the needs peculiar to a specific situation; note particularly any needs in the organization guidelines which remain to be met. The two types together will result in a fairly lengthy list of activities, plus an increased appreciation of the number and variety of activities required for support in this complex age. It is not necessary, at this point, to be concerned with the question of whether an activity is part of one already listed, or is implied by it. Completeness is the essential point here, refinement takes place during the alignment of activities in a staff element which has been chosen.

From this list, identify tentative staff elements by scanning it for common functions. Then, select related activities from the list and combine them into staff elements making certain that each item is accounted for by inclusion in some element.

For each staff element tentatively set up in this way, an analysis is necessary to clarify what will be achieved by its creation and whether the staff element is in fact needed; this may lead to some revisions. The analysis will also help to determine the proper organizational location for it and should define its role and relationships to other parts of the organization, both line and staff.

A summary of the major factors to be analyzed in selecting staff activities follows:

MISSION STATEMENT:	Define clearly and concisely the mission of this organizational element.
TYPE SPECIALIZATION REQUIRED:	What special capabilities will the staff element provide? Will this relieve the line operator of burdensome tasks, or those he/she can't supervise properly?
INDEPENDENT CHECKS PROVIDED:	Will the staff element provide quality, cost, or time controls? What organizations/activities are checked? Is this needed apart from the line element? Is uniformity of end product vital? At what level should these controls be provided - centralized or decentralized? Who receives the results of the check?
MOST USED CRITERION OR COMMON WORK:	Is there a single major user or are the specialties to be provided common to several or most elements? Are these activities better performed from a central point? Why?
AREAS OF EMPHASIS:	Is the specialty of such importance that it should be broken away to emphasize it? Do trouble spots need to be highlighted? Would it be slighted if left elsewhere? Will a separate staff element be able to provide timely service? Will it promote coordination of the specialty or make it more difficult? Is standardization of the specialty needed?

CONSIDERATIONS OF COST: Each staff element adds to overhead. Will it prove its worth in terms of increased efficiency and effectiveness? Does the workload justify a separate element? Should it be combined with another staff element?

RELATIONSHIP TO LINE: Advisory, coordinating, service, control, functional authority? What might be the difficulties encountered? How serious are they? How will they be overcome in terms of line-staff relationships and the ability of staff to do its job?

PROBLEM #2

Develop the staff elements needed for the line structure established in Problem #1. Each team will be assigned one staff element to prepare and analyze from its list of supporting activities.

Factors in Selecting Staff Activities

Factors To Be Evaluated	Staff Elements				
	Name of Element ANALYSIS SHOULD INCLUDE:	Name of Element	Name of Element	Name of Element	Name of Element
Mission Statement	Define clearly and concisely the mission of this organizational element.				
Type Special-ization Required	What special capabilities will the staff element provide? Will this relieve the line operator of burdensome tasks, or those he/she can't supervise properly?				
Independent Checks Provided	Will the staff element provide quality, cost, or or time controls? What organization/activities are checked? Is this needed apart from the line element? Is Uniformity of end product vital? At what level should these controls be provided – centralized or decentralized? Who receives the results of the check?				
Most Used Criterion or Common Work	Is there a single major user or are the specialties to be provided common to several or most elements? Are these activities better performed from a central point? Why?				
Areas of Emphasis	Is the specialty of such importance that it should be broken away to emphasize it? Do trouble spots need to be highlighted? Will a separate staff element be able to provide timely service? Will it promote coordination of the specialty or make it more difficult? Is standardization of the specialty needed?				
Consideration of Cost	Will it prove its worth in terms of increased efficiency and effectiveness? Does the work-load justify a separate element? Should it be combined with another staff element?				
Relationship to Line	Advisory, coordinating, service, control, functional authority? What might be the difficulties encountered? How serious are they? How will they be overcome in terms of line – staff relationships and the ability of staff to do its job?				

Remarks

Project:

Project No.:

Work Area:

Analyst(s):

Date:

Placement and Organizing for Basic Strengths

Even after the major line and staff elements are developed, there may remain some individual activities that do not seem to fit naturally and logically into any particular element, and other considerations may give guidance. The organization is made simpler and stronger by alignments that facilitate specialization, control, coordination, and adequate attention to vital activities.

Specialization

In a sense, departmentation is something of a choice among specializations of knowledge -- knowledge about a type of work, knowledge about a product, about an area, or about a customer -- a choice of which specialization should be emphasized to best accomplish the objectives of the organization. Since no manager can be expert in all these varieties of knowledge, a major decision involves what type of specialist is needed. An organization dealing with a variety of different products, each with its own technology and market, may find product specialization (and departmentation) effective, whereas an organization with a family of products made by essentially the same process for similar markets may specialize by function and would need department heads who find it easier to go from one product to another in the same function (e.g., production) than from one function to another (e.g., production to sales) for the same product.

In either case, the hoped-for benefits of specialization would include maximum utilization of the individual's abilities, development of skill by concentrating on a phase small enough to be mastered, the convenience of a compact grouping of related work, and easier supervision.

Control

Some of the means of control based on organizational alignment are:

1. Independent check
2. Deadly parallel
3. Clean break
4. Ease of supervision.

Independent check simply means that if one organization is established to check upon another organization, they should report to separate managers. The audit function should be separate from those expending funds. Inspection of a manufactured product should be organizationally responsible to someone other than a production supervisor who is also responsible for schedules, costs and scrap.

Many times organizations will be established with very similar functions so they may be controlled in deadly parallel; i.e., by comparison of results. This has been attempted in many governmental institutions (depots, procurement districts, etc.), as well as private industry (chain stores, finance companies, etc.). The success of such measures of comparison has been variable. Economic, political and social influences may have some bearing upon the operation of similar structures in different areas so that direct comparisons are difficult to make. The total environment must be considered when comparisons are made if this device is to be a very effective means of control.

The placement of organizational activity to permit a clean, natural division between the work of various departments is sometimes called clean break. The purpose is to clarify responsibility for results, particularly where activities are performed together. One of the more difficult problems in a functional structure is that of pinpointing responsibility. Where does the clean break occur between receiving and storage functions? Certainly there is a break, but care must be taken to explicitly define the break. If this is not done, confusion is certain.

Activities may be grouped to provide for ease of supervision. The geographic or physical dispersion might dictate a certain peculiar grouping under a common manager primarily because he is at the scene. The coordination of activities may be an important by-product of this grouping. However, the key point would be that activities could be better managed by someone close at hand, rather than by a supervisor or specialist located a considerable distance away.

Coordination

The nature of many processes requires that many different activities be grouped so they may be coordinated. A building contractor would have under his supervision such unrelated activities as excavating, plumbing, painting, etc. In a manufacturing activity it is not uncommon to find raw material inventory, procurement and property disposal all under a common manager. The need for coordinating all activities is the dominant factor for such a grouping.

Similarity of purpose may guide the grouping of effort. Medical, safety and employee counseling are found within many personnel departments, simply because they are a part of the overall concern for the health and welfare of all the employees. Better customer service is the usual reasoning for placing repair service as a part of the sales department.

Often when the analyst is grouping activities into organization units, there will be a number of miscellaneous questions. These are the operations that have no particular relationship to other functions or have any dependence upon another operation. Usually mail and records, central files and some other services do not warrant the status of major operating divisions and there is no compelling reason to place them in any specific spot in the structure. When this situation is true, the "most-used" criterion may be useful. Thus, if the engineering department makes the most of central files, the filing operation is attached to that department. In many activities, supply operations is a major user of data processing. Using the above criteria, machine processing of information is located in this branch.

Adequate Attention

Special attention may be given in the organization to a particular activity because it is unusually important to the success of the enterprise. Under this condition the organization is not only placed in a separate division, but also higher in the management hierarchy. This principle is used many times by the position of quality control. Where the inspection function is vital to the life of the entire entity, it may report to the top executive. The same tendency exists in other fields, for example, safety in a dangerous operation, or security in a highly secret operation and even data processing where information retrieval and processing is the key success factor in the organization. A word of caution - the "adequate attention concept" is used sometimes simply to increase organizational stature and to "build empires".

Two tendencies have brought considerable importance to the "adequate attention" criterion. First, the line official with many important duties cannot give primary consideration to all of them. If an activity is important enough, it can be made the sole duty of an organizational element to insure having adequate attention. Secondly, if the executive considers the particular function important enough to give it personal attention, then it may be placed higher in the structure to make it more accessible. The lines of communication are simplified, with less chance for loss or misinterpretation of information.

It is well to note that such actions may also bring disadvantages. First, the higher the activity is raised in the structure, the greater is the distance between it and the operating level. Moving it away from the working level increases the coordination and communication problems. Elevation from the real world to the level of thought and theory may break up the basic organizational pattern and create more turmoil and confusion than benefits. The analyst must use this concept with care and caution, making sure the benefits of adequate attention aren't outweighed by the chaos that might result.

Careful consideration of the many underlying factors that deserve attention is needed in the delicate refining and balancing of the organization. The wise analyst must be able to make full use of specialization, means of control, facets of coordination and adequate attention, and should strive for an optimum balance within the objectives of the organization and the parameters of its operation.

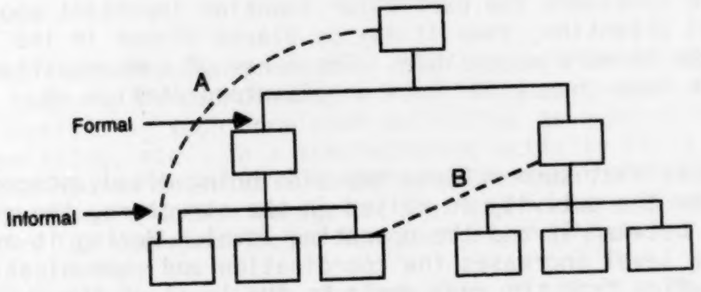
THE INFORMAL ORGANIZATION

We recognize the existence of two organizations which interact with the management process, the formal organization and the informal organization.

The formal is shown in the lines of authority and communication diagrammed on the organization chart, with its neat arrangement of blocks and connecting lines showing the prescribed structure of the management hierarchy.

The informal organization grows within the formal and is a result of social relationships developed in voluntary, as well as prescribed, contacts with others in the organization. These contacts take place both during working hours, such as in the daily work, the coffee break, and the lunch period, and after hours, as in the car pool, bowling team, and church or fraternal activities. The relationships of the informal organization develop around mutual interests, attitudes, and preferences of the people involved.

Some of the friendships developed by the informal contacts can prove very awkward on the job. Consider, for example, the position of the manager who has a subordinate on very close terms with his own superior (line A) or the workers in one section who find that their boss confides in someone at their level in another section (line B).



Other complications arise when a worker is promoted to a position of authority over former co-workers and the relationships with them change drastically, or when an individual tries to pull friends along when moving up in the structure.

The informal organization plays a major role in communication. The contacts and conversation, both on the job and off, provide the means for spreading inforamtion (or misinformation) in ever-widening circles. Unfortunate experiences in this area have convinced many managers that the informal organization is largely a vehicle for rumors and gossip and it is frequently referred to as "the grapevine" or "the underground".

Also, on the basis of common attitudes, interests, backgrounds (such as home town or college), close-knit small groups or cliques form which may regard all outsiders, including other cliques, with some degree of hostility and suspicion.

These antagonisms and awkward relationships, plus the "grapevine" aspects of it, cause many managers to resent the informal organization and oppose it. They view it as a disrupting force which hinders the efforts of the formal organization in accomplishing its objectives by resisting or modifying plans and orders, enforcing restriction of output, passing or withholding information for its own advantage, and using social pressures to influence the behavior of others to the disadvantage of the enterprise.

However, the informal organization also serves useful purposes within the formal hierarchy if its goals (as set by the wants of its members) are compatible and integrated with those of the formal organization so that it supports the latter rather than conflicting with it. In communication, informal channels may compensate for poorly constructed formal channels, and management actually prefers the informal system to convey certain types of information such as "off the record" material which it would rather not put in writing or give out as official. The informal communication lines are faster as well.

The imperfect foresight of the planner plus the time lag between planning and execution leave gaps and unforeseen situations which the informal organization serves to orient the newcomer to the customs and protocol of the work place. Whether or not a person becomes an "insider" of one of the cliques, it is necessary to learn the behavior and mores of the groups.

The manager who has the support of the informal organization may have a lighter workload because of getting greater cooperation and compliance; it is not necessary to control all activities with close personal attention. And, although the formal organization may grow to immense size, the informal organizations at various levels within it remain smaller in order to keep within the limits of personal relationships. Therefore, the informal organization gives workers some sense of protection and a feeling of belonging which the much larger formal organization usually cannot. Indeed, it is doubtful that the formal organization could survive without the informal.

Leadership in the informal organization may arise from several factors. Seniority is frequently a basis for higher status; the long-service employee is treated with deference and receives special attention when he speaks on job matters. Age, whether with or without seniority, also is a frequent basis for higher status in the informal group. Technical competence commands respect, which may carry over into other matters, personality plays an important role, and particular circumstances may give rise to other leaders.

It should be noted that authority within the informal organization attaches to a person, while formal authority attaches to a position and a person wields it because of occupying the position.

Whether management feels that the informal organization is good or bad for the enterprise, it cannot abolish the informal organization because it did not set it up. Unlike the formal organization, which was created by management and can be rescinded by it, the informal groups are established from the association of people and will exist as long as people work together. Management's goal must, therefore, be to integrate its interests and objectives with those of the informal organization so that they work in harmony and mutual support.

SPECIAL ORGANIZATONS

Introduction

The complexities of today's environment frequently require adaptability to rapid change. The traditional bureaucratic structure functions well under conditions of high certainty, with relative stability and routine operations, but where these conditions are not present other approaches must be found Greater structural flexibility to meet changing conditions is being accomplished in many cases by the creation of special organizations. These special organizations are often ad hoc, or temporary organizations set up for a one-time or low-unit-volume project. A special team or group is assembled for the duration of the project, and the members are disbanded and reassigned upon completion. This places a premium on employee cooperation and adaptability because an individual might belong to several different teams or work groups within a short period of time, or he might be assigned to two or more teams at the same time. It also requires more frequent decisions on worker assignments.

The mode of operation of these groups can range from drawing upon supporting organizations for all necessary functions to being relatively complete and self-supporting. These temporary organzations may become permanent; as a project is completed another may be assigned to essentially the same group to take advantage of the on-going organization.

A major characteristic (and radical departure) of these organizations is the existence of horizontal and diagonal relationships for transacting business, particularly in unifying project activities across the whole organization, in distinction from the up- and down-the-hierarchy orientation of traditional organization. Several of these forms will be described.

Project Manager

The project manager form of organization has been widely used in business, military and governmental organizations, especially in highly technical activities that require a great deal of planning, research and coordination.

A variety of projects of varying size and importance are normally under way in an organization, being handled in routine fashion. Upon occasion, such factors as importance, technical complexity, or cost of a project may lead management to establish a project structure in order to provide "intensive management", i.e., to better focus talent and resources on it for a given period of time.

There is no one form of project management organization. The potential number of variations and combinations could virtually equal the number of projects, but four types illustrate degrees of structural development and self-sufficiency.

1. Simplest is the individual project manager who has no activities reporting directly to him; all work on the project is performed by other organizational elements. He serves in a staff capacity to a line manager, monitoring and coordinating the project through persuasion and negotiation but with direct line authority exercised only by his line manager superior.

2. The project manager may have key staff activities assigned to him and under his direct control. Contract administration, budgeting, and scheduling for the project are examples of activities which may be assigned to the project manager for his direct support; the line activities remain with the functional organization and, in this situation also, the project manager must accomplish the key portions of the project through persuasion and negotiation rather than through his authority (unless special provisions are made as described later).

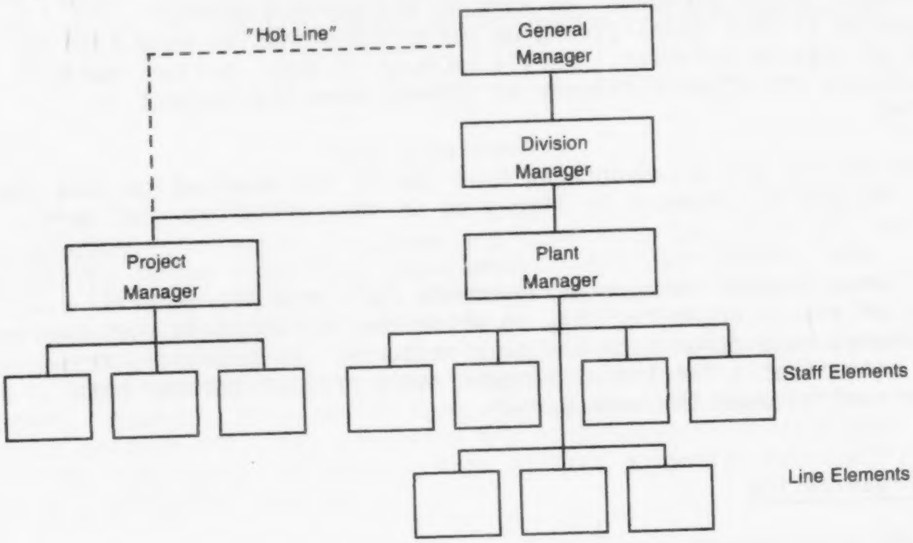
3. The project organization may be a mix of line and staff activities, with the staff-type organization described above augmented with key functions such as research and development. The project manager still has to draw upon supporting organizations for other work such as manufacturing. In variations 2 and 3, the activities assigned to the project manager may be small groups of people who provide only a managerial capability in the function for monitoring work done in supporting organizations, or they may be larger groups with capability for full performance of the work.

4. Finally, the project organization may be complete and self-supporting, with all necessary line and staff activities under the direct control of the project manager. At this end of the structural spectrum, the project organization looks and operates with many similarities to a product element under the product pattern of departmentation.

It is important to note that the foregoing descriptions of the authority of the project manager can be significantly altered. The fact that the project is important enough to warrant a special project manager gives him some status in dealing with those in other organizations who provide support to him. This status may be further increased in several ways by actions of a line manager high enough to be above both the project organization and the supporting organizations. A second means is to confer an extraordinary delegation of authority on the project manager, as illustrated by the description of the project managers in the Army Materiel Command as "wearing the full four stars of the Commanding General, Army Materiel Command" in carrying out their projects. A third means is to authorize a "hot line" for direct contact and communication with a top-level manager by a project manager who may be organizationally situated several levels below.

These techniques can place the project manager in a very powerful position in dealing with supporting organizations, going far beyond the persuasion and negotiation normally relied upon in traditional relationships with organizations not under one's direct control.

An example of placing the project organization in relation to the rest of the structure is shown in the chart:



When the importance, cost or complexity of an effort seem to management to warrant the establishment of a project manager, several benefits are looked for: visibility, coordination and control, drive, and single point of contact.

The project manager arrangement gives the effort high visibility, the prominence and status its importance requires, and this aids in getting the support needed for successful accomplishment. The PM arrangement provides closer coordination and control by assigning a manager to devote full time and attention to the project rather than dividing his effort among several projects being handled in the regular organization. Costs of the project are also subject to better identification and control because of the central point of direction. Adequate drive for the effort comes from pinpointing responsibility for the success or failure of the project squarely on the project manager:

his performance can have significant effects on both his organization and his career. Finally, the project manager serves as a single point of contact for all matters pertaining to the project, whether it be to serve as spokesman for the project to higher management or to serve as the contact point for contractors and others outside the organization.

The organization must pay a price for these advantages of having a project manager. The PM is often very powerful, as noted; his free-wheeling activities in cutting across traditional organizational lines of authority and communication and pushing his demands on supporting organizations can create intense conflict with other managers and disruptions in their organizations. Under the best of conditions, the operations of a project manager require adjustments by existing line and staff structures which may be resistant to the change. It may also be difficult to get personnel to work in the project manager organization if this means giving up established jobs to move into a project of limited duration. Partly because of this, project manager organizations are often difficult to disband when the project is completed.

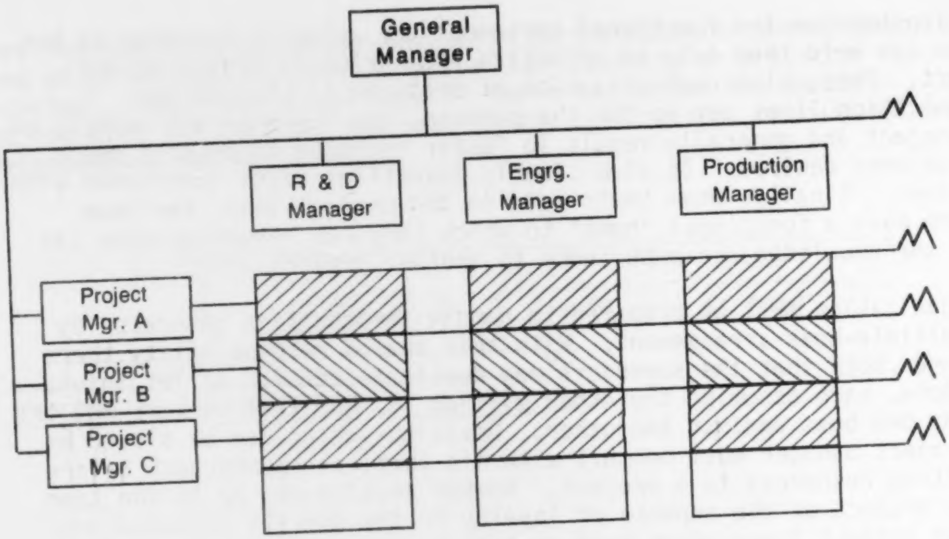
These advantages and disadvantages have led to the observation that the project manager arrangement is likely to be more effective--but more expensive.

Some of these project manager arrangements fall into the general category of matrix organizations, in which the key point is that two or more managers make demands on the same resource. In practice, this usually means that a functional manager and a project manager both exercise control over the same person.

Matrix Organization

The matrix organization comes about by overlay, i.e., when a project structure is superimposed on a functional structure. Although the term "matrix organization" is sometimes loosely used to encompass a variety of arrangements made to handle projects in an organization, primary usage refers to a project organization overlay in which the functional personnel are actually reassigned to the project manager for direction and control. The project manager directs the work to meet specifications, deadlines, and cost limits; the functional manager assigns the support to be given, provides advice and assistance to the project manager, and (usually) does the performance appraisals with input from the PM.

The matrix form can be visualized as a horizontal, laterally moving stream of projects across a functionally aligned, vertical organization, as illustrated on the next page.



Matrix Organization

As a project is created, resources are drawn from the pools of specialists in the functional departments (vertical columns) and assigned to the project for its duration (horizontal shaded areas), then returned upon termination of the project. This is in contrast to many project arrangements in which the specialist remains responsible to his functional supervisor even though devoting full time to the project. However, in a matrix form, the specialist assigned to the project manager still has ties with his functional supervisor and therefore reports to two bosses, with all the potential for conflict that this situation creates.

Flaunting such traditional principles as unity of command is perhaps not really surprising because it is the inadequacy of certain features of the bureaucratic structure and its supporting principles that necessitates the matrix form of organization. Dynamic environment, customer demands, increasing size, technological complexity--all these factors may combine to demand more flexibility and responsiveness than can usually be drawn from old functional line/staff arrangements.

Matrix organization is most effective in situations where there are few projects, few end products, and only one or a few customers. Its primary use to date has been for major projects in the aerospace industry; it is less adaptable to continuous-process, high-volume production. It develops the network of relationships necessary to achieve an objective rather than developing usual line/staff relationships and offers the significant advantage of establishing one manager with clear overall responsibility for the success of the project. The project manager is in a relatively strong authority position because the functional personnel are actually assigned to him and he can weld them into an effective team oriented toward an end product. This, plus centralization of decision points and the communication lines set up for the purpose, tie together all aspects of the project and generally result in faster response to project needs and customer desires. It also clearly identifies costs associated with a project. Finally, when their role in the project ends, the team members have a functional "home" to which they can return or they can carry the knowledge and experience to another project.

An organization must be prepared to handle the conflict generated by the multiple-boss arrangement. With this shared responsibility there is danger both that the superiors may duplicate efforts or let things go undone, each assuming the other will do it, and that workers may try to play one boss against the other. Decision-making may be slowed as the project manager must consult with his vertical counterpart before committing resources to a project. Worker loyalty may be to the team or the project at the expense of loyalty to the overall organization, and the project teams often tend to become self-perpetuating rather than disbanding at the end of the project.

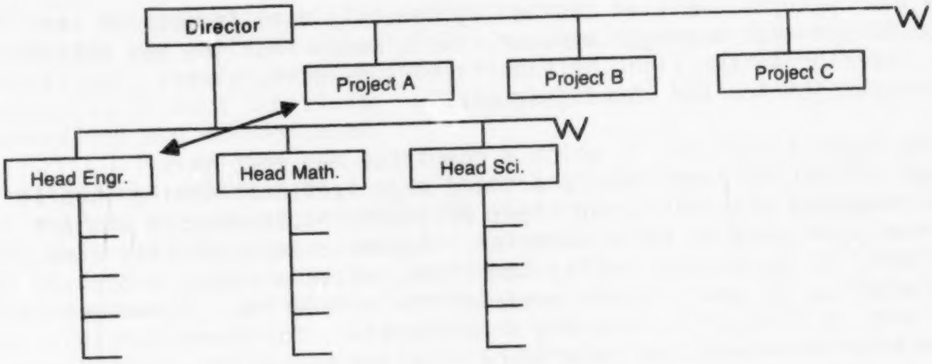
It becomes apparent that applications of the matrix form must be carefully selected and that any organization doing this must be alert to the conflict and other problems which can accompany the advantages.

Task Force Organization

The task force designation is used in a variety of ways also, but two forms stand out. The more conventional form is a team assembled for a specific objective, usually on a one-time basis. An example of this would be a task force created to choose the location for a new facility. As in the example, the output of the effort is usually an administrative decision or study rather than production of an item of hardware, and it has a time limit or deadline for reporting, after which it disbands.

Some of the characteristics resemble those of a temporary committee. One significant distinction is that, whereas the committee members normally devote part of their time to committee work and continue with their regular jobs, a task force assignment is likely to involve intensive full-time effort on the task force matter.

Another type of task force is used in consulting firms, research and development, and other situations which are extensively project-oriented or require a great deal of flexibility. In this arrangement, engineers, mathematicians, scientists and others are grouped according to discipline as the elements of the organization, not unlike the grouping in a functional element. These groups represent pools of talent from which are drawn the skills needed to meet the requirements of the project. As indicated in the diagram, the head of an element will serve in the dual capacity of project principal, reporting to the head of the organization for matters dealing with the project, and head of the skill group, recruiting and administering the personnel.



Upon completion of his part of the project, the team member returns to the skill group to await assignment to another project. It is often characteristic for such an organization to be completely project-oriented without continuous work of a routine nature in the skill group (as distinct from the functional organization which also supports some projects). It is therefore imperative to keep all personnel productively assigned to projects; this is often done by slightly understaffing and keeping a backlog of projects available.

This type of task force organization provides the greatest flexibility for the organization but also demands an unusual degree of flexibility and adaptability of the personnel who have no permanent "home" in the structure. Reassignments may be frequent, requiring frequent adjustments to new work groups, new project orientations, and new environments.

Committees

A committee is properly considered an organizational device because it is performing an activity that, for various reasons, is not otherwise assigned. It may or may not have authority to take action, and it may be either an ad hoc group or a permanent committee.

The proper use of committees is based on two fundamental assumptions. First, it assumes that the structure of the organization basically conforms to the principles of good organization. Managers recognize that the committee device is not a crutch for poor organization structure - it supplements good structure.

The second basic assumption is that the enterprise has effective managers. Too often the committee device is used to supplement and buttress inefficient personnel. True, it may sometimes be necessary in the short run. But this situation should be clearly recognized, and vigorous efforts should be made to achieve good organization and employ effective managers as quickly as possible.

The one time when a committee can be legitimately used is when it can do a job better than a single manager. This means that the net effect must be superior in the light of such factors as cost, time, decisiveness, justice and sound judgment.

There are three situations in which a committee may meet this criterion. First, a committee is a sound organizational device when it is used to obtain the considered views of subordinates about a subject beyond the experience of their superior. A good example of this kind of committee is the typical policy committee, whose purpose is to formulate policy to best fit the needs of the enterprise. A manager who has come up through engineering or production, for example, may lack the broad knowledge and experience required to decide a matter of this type. Consequently, it would be advisable to refer the matter to a policy committee. The members of the committee should develop their views, not only with respect to special interests of the division or function they represent, but also from the viewpoint of the welfare of the organization as a whole. Their considered views would result in a consensus, which they would report in the form of a recommendation to the executive. In this instance, the committee would be acting in a staff capacity, and it would probably be a standing committee.

A second appropriate use of a committee as an organizational device is to exercise authority that is too great for any one manager. The authority may be considered too great because it requires broader knowledge than any one person can be expected to have, because there is too much risk of bias or prejudice, or because it is difficult to find a person willing to exercise the authority. Committees of these types are standing committees that are delegated line authority. They make decisions on a majority basis and are true "plural executives".

A third reason is to use a committee as an organizational device is to diffuse responsibility among several executives. One manager might well find the assignment of making an evaluation very uncomfortable, and he would be the target of complaints and accusations from those who felt that they were unfairly treated. When a committee is used for this purpose, responsibility is spread among the members, and disappointed recipients are less disposed to complain; they are more likely to be satisfied that no bias or prejudice was involved in the decision of a group. A committee of this type is likely to be an ad hoc group, and it normally has a staff position with respect to the chief executive officer. However, at the option of their superior, the committee may be delegated line authority to act in the situation.

Three important elements are necessary to make committees truly and effectively operational. First, the purpose for which the committee is being established must be distinctly defined. A written statement will help to achieve clarity, and it will eliminate the need for committee members to spend time deciding exactly what they are supposed to be doing.

Second, the authority of the committee must be clearly specified. The committee may perform a staff function, having authority only to investigate and recommend to their superior, or it may be given authority to make decisions. Which is the case must be clearly determined and communicated.

Finally, the chairman of a committee should be appointed on the basis of ability to conduct an efficient meeting. Efficiency requires that the chairman prepare an agenda in advance so the members will have time to study the subject and consider their views. It means that the chairman must insure that all members are heard from, encouraging the reticent and keeping the loquacious in check. When all the contributions of the members are in, he should state the consensus of the meeting to be sure that he has properly understood it, and he should see that minutes of the meeting are distributed in rough form for correction and review prior to their final distribution.

It is an efficient practice for a company to make an annual audit of its committees, evaluating each one to determine whether it can be justified as an organizational device. If any existing group fails to meet one of the three basic purposes of committees, there is a serious question of its legitimacy.

SPAN OF CONTROL

Organizational structure can take many forms but at the risk of over-simplification, we can say that every organization falls roughly into one of two main types--the vertical, or tall and the horizontal, or flat. These, of course, are the extremes and there are many organizations that, for one reason or another, must be classed somewhere in between.

The "tall" structure is exemplified in the organization possessing many levels of authority, with managers at each level exercising a short span of control, that is supervising the work of a small number of subordinate managers. "Flat" structures are those organizations with few levels of authority and a wide span of control for the individual manager at each level.

Tall structures are not necessarily characteristic of large organizations, or flat structures of small ones. Nor are the differences symptomatic of centralized or decentralized operations. While it may be true that tall structures are more commonly found in large, centralized organizations, this particular combination is by no means typical. The shape of the structure should not be equated, therefore, with such other organizational characteristics as size or degree of centralization. Tallness or flatness is determined solely by the differences in number of levels of authority due to the variations in each level's span of control.

Span of Control -- or Span of Management

Though it has often been affirmed that five or six subordinate managers represent the maximum number that a superior can effectively control, in practice the span varies widely from this theoretical limit. Thus, in a retail chain that may have only four levels of authority between the company president and first-line supervision, one manager may supervise from 20 to 30 stores. By contrast, his counterpart in a manufacturing operation, where there will be from five to seven levels of management, or more, may have between five and ten subordinates. Some companies have as many as 12 levels between the president and the first-line supervisors; here, the span of control generally runs below five. A study of the span of control at the presidential level showed that among 100 large companies the median number of executives reporting to the president was just over eight; the individual presidents' span of control ranged, however, from one to twenty-four.

These inherent differences of structure influence the climate of the organization in a number of ways. Among the most important we may note:

1. The tall structure is characterized by close supervision, simply because it is both easy and tempting for the manager with few subordinates to keep a constant watch on what they are doing. In the flat structure, close supervision is not even possible.

2. In the tall structure, the manager can think of a small group of subordinates as "my team", and there may be open attempts to compete for his favor. In the flat structure, the manager does not know his subordinates so well because he has less contact with each of them and has to judge them more by impersonal or objective standards of performance. Therefore, the subordinates compete with one another in terms of their actual work performance rather than on the basis of their personal relations with the boss.

3. The tall structure encounters numerous barriers to communication up and down the line, because messages can easily be distorted, if not lost altogether, at any one of its many levels. Consequently, it has a prime need for administrative controls, which in turn necessitate the promulgation of numerous rules and regulations, limiting and defining the behavior of its personnel. By contrast, the flat structure allows for more informality and more variation in behavior. Organizations of this type can get along with fewer rules and regulations.

4. The many levels of authority characteristic of the tall structure provide nicely spaced rungs in the promotional ladder. Moreover, the close contact between superior and subordinate allows each candidate for advancement to study the boss's role carefully. In the flat structure, on the other hand, every promotion represents an enormous step into the unknown. Not only does it bring a great increase in responsibility, but the manager has never had a chance to observe his superior's performance in what is now his own role.

   Here it may also be noted that in the tall structure, the superior can actually help his subordinates prepare for promotion and, in so doing, put them in his debt. In the flat structure, he has less opportunity and the newly promoted manager will owe no gratitude, should he succeed, to anyone else.

   Further, the many promotional steps of the tall structure allow for frequent re-evaluation of the individual manager. For this reason, and because promotion does not entail a great increase in responsibility, the organization can afford an occasional mistake in selecting people for promotion. But what this means for the individual manager is that his status is never secure until he reaches the very top. The flat structure imposes a severe selection problem upon the organization, which obviously cannot afford to promote too many managers who fail. The person who does justify his selection will, of course, gain a great deal of self-confidence and prestige from his achievement, but he may be tempted to overevaluate his abilities and success as a result.

5. In the upper reaches of the tall structure, promotion does bring a considerable increase in responsibility, and managers who have been moved along very gradually may not have the qualities necessary for these final jumps. Recognizing this problem, many tall companies invest heavily in executive training, development programs, and the like. Flat structure is less likely to present this difficulty. In fact, flat companies often find themselves with a number of high-level managers who seem well qualified for further promotion. Among these companies there may be relatively little investment in executive training or counseling programs.

6. The tall structure tends to produce leaders who are very much at home with rules, regulations, and the other paraphernalia of a highly rationalized organization. These leaders, moreover, frequently come from financial, legal, or technical backgrounds. Flat structures tend to produce inspirational leaders with a background in production. Thus it is in tall organizations that we hear most about the profession or science of management and in flat ones that we find hero-worship of individual top executives.

7. Very complex or intricately coordinated operations, such as are found in manufacturing, military, and government organizations, need the discipline that is best maintained by tall structure. Flat structure is more appropriate for loosely supervised and technically simple, though individually more challenging, operations, such as those of sales, service, political, and religious organizations.

8. In the tall structure, with its close supervision and regulation of behavior, successful human relations tend to produce a condition best described as contentment. In the flat structure, with its greater scope for individual freedom, initiative, and inspiration, it is more likely to result in a condition best described as enthusiasm or morale.

To sum up the foregoing analysis, tall organizations are characterized by close supervision, the team spirit, competition through personal relationships, gradual increases in responsibility, constant insecurity about status, emphasis upon the techniques of management, and an abundance of rules and regulations -- in short, precisely the atmosphere that has fostered the development of the "organization man." Flat organizations, on the other hand, seem to provide a natural habitat for the individualistic, entrepreneurial personality. Far from being at home in such surroundings, the conforming, group-oriented type of manager runs the risk of being trampled to death by his more aggressive colleagues. Unless, therefore, it can be shown that tallness is the ultimate shape of all organization--and of this there is certainly no evidence as yet--the possibility of our industrial society smothering under an all-embracing blanket of conformity seems somewhat remote.

In fact, there are a number of signs that suggest that the trend is in the opposite direction. In the first place, the proportion of the workforce engaged in blue-collar occupations is steadily decreasing, thereby reducing the need for managerial personnel in the industries where tallness is most prevalent. Indeed, the introduction of automation into information and control systems threatens the whole layers of middle management as more direct contact between top management and the production line becomes possible. Meanwhile, the proportion of the workforce employed by the flatter service organization is increasing. In these organizations also we can discern a distinct revival of the role of the entrepreneur, who is subject to only a very modest amount of guidance and regulation from the parent organization.

Second, the accelerated need for high-level personnel is bringing about a searching re-examination of personnel policies and procedures designed principally to insure uniformity of treatment for all members of the organization. More and more, organizations are coming to realize that their continued prosperity and growth hinge upon the uncommon individuals--the creative scientist or engineer, the systems maverick, whose contributions cannot be measured by traditional standards or rewarded by conventional techniques. While it cannot be said that any great progress has been made thus far in the search for ways to reconcile the needs of exceptional individuals with the administrative requirements of smooth organizational functioning, the search is on and will undoubtedly be intensified in the future.

In short, there seems to be a need for an increasing awareness of the interaction of the type and arrangement of organizational structure and the new model typical employee. The influence of one, considering the rapid technological changes taking place almost daily, may have a far greater influence upon the other than we have suspected during recent years. Thus, the choice between a tall or flat structure, between a short or long span of control, must be tempered with a great many factors, not the least being the qualities and the environment of the individual employee.

CENTRALIZATION-DECENTRALIZATION

Discussion of centralization and decentralization can take place in two contexts. One is the dispersion of physical facilities; the other is the degree of delegation of authority in the organization. Although centralization of physical facilities is likely to be accompanied by centralization of authority also, there is not necessarily a correlation of the two.

Our concern is with the second aspect, that of the centralization or decentralization of authority. Actually, the terms seem to indicate two theoretical extremes under which all the decisions are made at the top level of the organization or else are all made at the bench level. Neither extreme is too realistic (although some cases of extreme centralization may be found particularly in small organizations); the issue is a matter of degree, of how much authority is to be delegated to subordinates and of how important and far-reaching are the decisions which can be made at lower levels.

This issue must be faced in every superior-subordinate relationship. The degree of authority for planning and decision-making which is delegated to the subordinate will be partly a personal matter between the subordinate and the boss based upon their relationship and the confidence in the ability of the subordinate. But it will also be determined by the philosophy of the organization toward decentralization of authority.

Decentralization was a great topic for management discussion a few years ago and was a popular subject for magazine articles, books, management seminars, etc. It was highly recommended and the publicity sometimes gave the impression that a management revolution was under way. When the smoke cleared, however, it appeared that in many cases there had been more talk than action, and in others it was deemed unsuccessful and was abandoned.

It should be noted that the extent of decentralization of authority is related to the pattern of departmentation chosen as discussed in Section IV. The product, geographic and customer patterns lend themselves particularly well to the decentralization approach, and divisions set up in these patterns are often assigned their own staff elements to form a complete operating entity (see charts). Then, the division head, rather than the president of the company, makes the plans and decisions for operations of the division. There are controls, to be sure, but they are controls by more indirect means such as budgets, policies, and review of results rather than by the direct action of making day-to-day operating decisions. The division head is thus fully responsible for the performance of his division. In private industry, this is likely to mean responsibility for production, sales and profits, much as if the division were in fact a company.

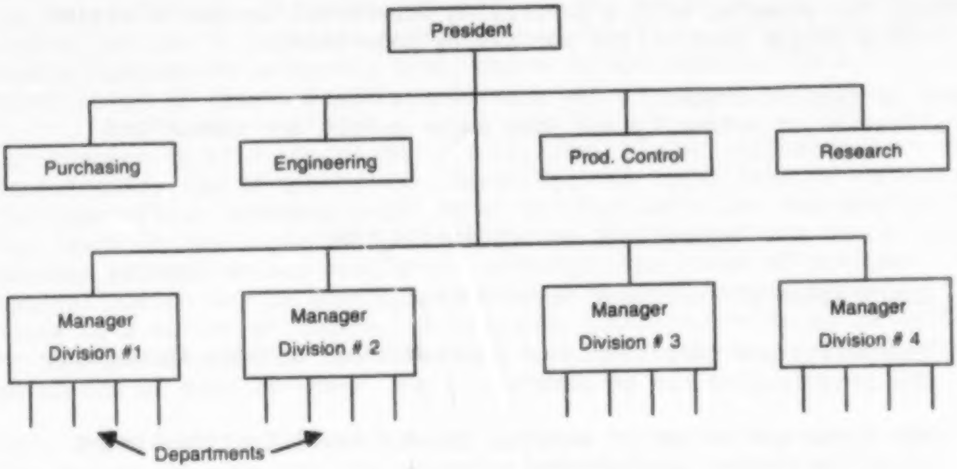
A policy of decentralization fosters significant decision-making at lower levels of management, close to the scene of action. Some top managers are reluctant to practice this because, despite the obvious advantage of the manager-on-the-spot, they fear loss of control and prestige and mistakes by subordinates. They also have an argument on cost: decentralization as described above results in duplication of activities; for example, with a purchasing department in each division rather than a single centralized purchasing department.

There are persuasive arguments for both centralization and decentralization of authority and some major points are summarized below.

ADVANTAGES OF CENTRALIZATION

1. Duplication of functions is minimized.
2. Uniformity and consistency of decisions and actions throughout the organization can be secured.
3. The scope and volume of work at the top level justify hiring highly qualified specialists.
4. Unusually talented personnel have the widest arena for their skills.

CENTRALIZATION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Engineering
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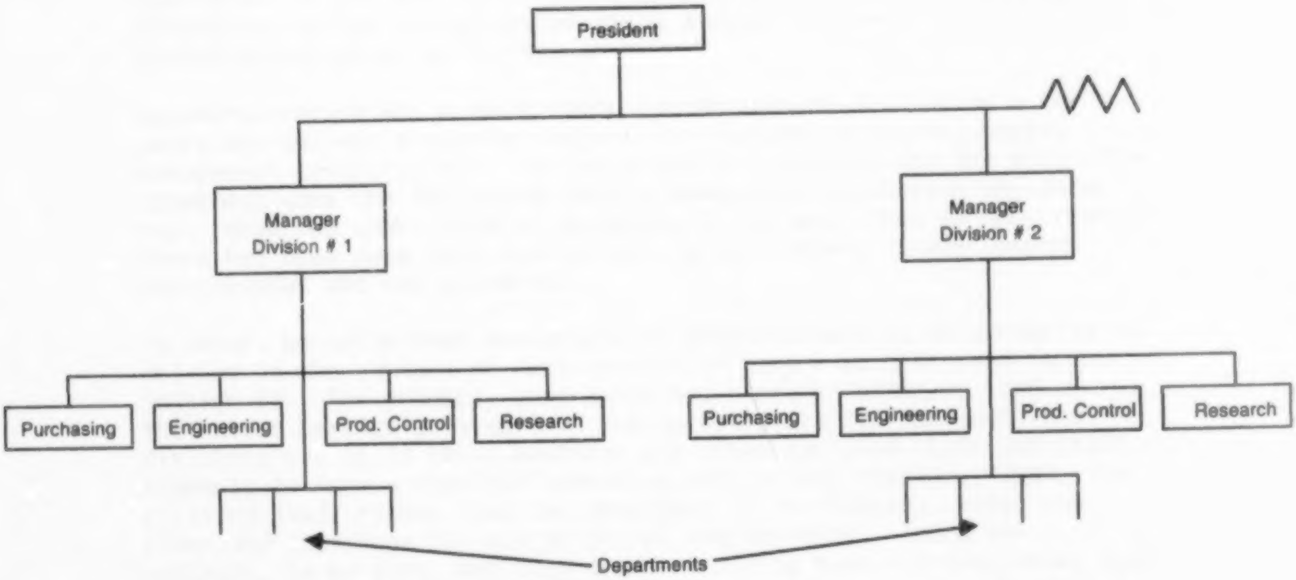
Research
Manager Division #1
Manager Division # 2
Manager Division # 3
Manager Division # 4
Departments

DECENTRALIZATION


President
Manager Division # 1
Manager Division # 2
Purchasing
Engineering
Prod. Control
Research
Purchasing
Engineering
Prod. Control
Research
Departments

Decentralization of authority is often supported by decentralization of staff activities.

5. Less-skilled managers can fill lower level positions.
6. Power and prestige are provided the chief executives, serving also as motivation for lower managers.

ADVANTAGES OF DECENTRALIZATION

1. Personnel assume wider responsibility at lower levels, developing from specialists into generalists and creating a supply of managers experienced in general administration.
2. The delegation of autority relieves the burden on the top managers.
3. Effective management teams develop at a lower level.
4. Where geographical dispersion of operations is involved, decentralization of authority allows the local manager to meet and take advantage of local conditions.
5. Innovations can be introduced in one division to have the problems resolved before instituting them on an organization-wide basis.

It should be recognized that a large organization does not apply the same degree of decentralization throughout. There are differences from one department to another, and from one function to another; for example, even in a generally decentralized company, the accounting function is likely to be rather closely controlled from the top.

An important consideration in any organization, therefore, is the matter of decentralization of authority. Factors to be weighed in a given situation include what personnel are capable of making sound decisions, who has access to the facts on which the decisions will be based, how important is speed of decision-making, how necessary is consistency with other activities, and how important is the decision.

POSITION GUIDES

To this point a large amount of effort has been expended toward the building of a formalistic organization structure. Emphasis has been upon identifying, arranging, and structuring work. Little has been done toward selecting positions, assigning of duties and obligations or the delegating of activities.

This section considers the organizational relationships that are necessary to permit the normal functioning of an entity. It will focus on an understanding of the meaning, powers, limitations, rights and obligations of the various positions within the structure particularly when related to the authority, responsibility and accountability of each position.

Authority

Authority may be defined as the power to command obedience, the right to act, or the right to command others to act. It also implies the power to enforce one's commands.

Authority is directly related to one's position in the organization. It is authority quite apart from the person in the position; one receives the authority by occupying the position (and loses it by giving up the position). How much authority is vested in a position is partly indicated by its location in the hierarchy of the structure. It has long been the practice to represent an organization as a pyramid with maximum authority at its apex, and one's relative authority in the structure is indicated, in part, by how near the apex the position is in the hierarchy.

In addition to degrees of authority, there are types of authority as explained in the section on line and staff. As described there, line authority is authority to command, so all superior-subordinate relationships involve line authority. Staff authority, however, is characterized by advice and service to the line rather than by order-giving authority as when a commander's legal department advises him about handling a discrimination complaint without being able to actually make and enforce a decision.

It should be pointed out that there is a distinction to be made between "authority" and "power". Whereas authority comes with the postion, and the right to command others comes from occupying such a position in the hierarchy, power is a more personal force. The person with power is able to influence decisions and actions without necessarily having the authority of a position high in the structure. Such power may come to an individual in different ways. One way is to have a position of strategic location: the secretary to a top manager has little authority from the secretarial position in the hierarchy, but may have great power because the position includes making appointments and schedules, screening and passing information to the manager, and having confidential knowledge of the manager's activities. A person low in the structure could have friends or relatives in high positions and have power from having access to the people in those positions. And the long-service employee possessing the "corporate memory" or the specialist with one-of-a-kind skills or knowledge may experience far more power than the position in the hierarchy would indicate.

In designing the position guide, the analyst is concerned with the authority aspects of the position being established.

Responsibility

Responsibility may be defined as, "The obligation to perform assigned functions with the maximum practical effectiveness and efficiency."

There is a close and dependent relationship between responsibility and authority. For any enterprise, there is a total number of functions to be performed. Orders are issued by virtue of authority and the recipient of the orders is vested with responsibility to complete those functions.

At this point, assuming perfect communication between superior and subordinate and assuming complete acceptance of the orders, authority and responsibility would be equal. Equalness of the delegation of authority and obligations of responsibility is viewed by some as a prime requisite of a smoothly operating organization. But, when critically considered, it is doubtful if an equal balance of authority and responsibility ever exists. Indeed, some management leaders suggest that an individual's responsibility should be just a little bit more than his authority.

The acceptance of a job or position in an organization brings an obligation to the individual to perform properly the assigned duties and functions. There is an implied acceptance of these responsibilities when an individual accepts a job. The definition emphasizes clearly that responsibility must be carried out with maximum practical effectiveness and efficiency. This means that minimum results are not good enough; it does not constitute complete discharge of the individual's responsibility.

Responsibility is an individual matter, and its satisfactory discharge is unlikely unless it has been allocated properly and definitely to some individual. It also is a derivative of function, and is, therefore, inherent in the job. There is some disagreement among managers on how best to distribute responsibility, with three main approaches:

1. There are those who believe that there should be little formal division of responsibility and authority.

2. There are those who believe that responsibility should be divided primarily with regard to the specific capacities of the individuals available in the organization.

3. There are those who believe that responsibility should be divided primarily with regard to the requirements for continued operation of the organization.

Managers in the first group feel that responsibility will gravitate naturally to the stronger and more competent leader in the organization. This implies that it will gravitate in the proper amount and degree, if a condition of free competition is maintained between these leaders. This concept overlooks the fact that the stronger leader is not necessarily the most competent. It may be sound to the extent that decisiveness and strength of character are attributes of successful managers, but this concept involves various dangers. It fosters organizational politics, may reduce organizational effectiveness because of distortion in functional grouping and divisions of responsibility that may result, and encourages "empire building". Also, the progress of aggressive, self-seeking executives may be achieved at the cost of resentment among those over whom they have climbed roughshod, and this will cause friction and strife within the organization. Responsibility and authority tend to remain highly centralized under this concept. The responsibility and authority of the "strong" aggressive executive are assumed, of course, rather than delegated; interestingly, their existence may be denied by the executive's superior.

Executives who believe in the second hypothesis reason that responsibility must be divided so as to take advantage of available skills and talents. Observing that an organization is seldom fortunate enough to have people with qualifications tailormade to the specific requirements of the positions to be filled, this approach fits the organization to the people, rather than vice versa. But, the grouping of functions on the basis of the human capacities and abilities that may be available at the moment is an expedient; an organization built on inadequacies of its present personnel is not likely to achieve any great permanent success. Also, during periods of rapid expansion, mission changes, and scarcity of qualified personnel, some heads of divisions have done a progressively poorer job. Their inabilities have not been reckoned with primarily because of their entrenchment through seniority and the lack of qualified replacements, and they lack the flexibility to grow with the new needs.

The third idea emphasizes the need for a division of responsibility on the basis of functional requirements as being basic to the continued existence of the organization. The principal functions of an organization remain and must be performed, whether the individuals who perform them remain or leave. This does not say that the human factor is not important. It simply states that provision must be made to continue essential functions without being at the mercy of "indispensable" individuals.

The last concept seems to be the most solidly structured approach to division of responsibility. The best application is an intelligent compromise between the ideal requirements of the job and the abilities of the available personnel. It may be decided to make temporary divisions of responsibility, that are not the most desirable, until certain key individuals can be retained and built up to handle the job. It may be decided to proceed at once to the proper organizational arrangement, hiring various qualified individuals from other organizations. Either approach must be tempered with good judgment and a realistic appraisal of the existing environment before deciding the course of action.

Accountability

Accountability is a requirement or condition under which each member of the organization renders a report on his discharge of responsibilities and is judged fairly on the basis of his record of accomplishment. It is a derivative of objective, function, responsibility, and authority. A person accepts the condition, as specified, when he accepts the responsibilities that go with the job. Accountability is similar to function, responsibility, and authority in that a superior can establish accountability for the proper performance of functions that have been delegated to his subordinates. He cannot, however, relieve himself of accountability through delegation.

Accountability may be established by means of organizational and operational directives. They usually specify the performance standards by which the degree of accomplishment of assigned objectives may be judged. Individuals are likely to give themselves the benefit of the doubt concerning what constitutes satisfactory performance of their functions when they cannot be held strictly accountable for results based on standards.

The maintenance of accountability is one of the purposes of the control function. The comparison phase of control determines the degree of agreement between actual and predetermined performance in accomplishing an assigned mission or some phase of it. It measures the extent of the accomplishment of assigned objectives in terms of quantity, quality, time, or expense. The corrective action phase of control leads to disciplinary action, either positive or negative. Hence, it may include some determination of what constitutes appropriate action with respect to a subordinate in the light of his discharge of his responsibilities. Accountability is a logical outgrowth of these efforts:

1. The analysis of objectives.
2. Functional analysis.
3. Division of responsibility.

4. Determination of the authority required for each allocation of functions and responsibility.
5. The delegation of responsibility and authority.
6. The establishment of control.
7. The development of accountability.

Accountability is an individual rather than a group characteristic. Divided responsibility and authority necessarily result in divided accountability. The latter leads to friction between superior executives, "buck-passing" by subordinates, and other difficulties. Such problems can lead to the breakdown of the organization and the failure of the mission, if permitted to persist. This is one reason why committees are usually kept strictly in a staff capacity in business organization; no one can be held wholly accountable. Accountability to a single superior executive for results, based on clearly defined delegations of responsibility and authority to designated positions, is a requisite for the successful accomplishment of organizational objectives.

Building the Organization Structure -- Step 6: Position Guides

Define the authority, responsibility and accountability for each position created in the organization structure.

The selection of a pattern, the naming of the element and the preparation of the mission statement do not give adequate guidance for the activities to be performed in the element, nor for the organizational role of the manager. Some guidance is needed to indicate what type of manager is required, how the manager is expected to operate, and to provide a basis for the job grade and the job description.

For example, when a branch store is established in an urban shopping center, does the manager control his own advertising, choose the lines of merchandise to be carried, set his own credit policy, handle the personnel problems? What is expected of him in terms of sales volume, percent of profit on the sales dollar, turnover of merchandise? Is he bound by the guidance from the staff elements at the home office? Does he report to different supervisors for different responsibilities?

These and similar questions must be answered, either by design or by a painful period of trial and error. To minimize the latter, the Position Guide is an attempt to establish relationships within which the manager must operate. It spells out the authority than can be exercised to accomplish the responsibilities, and clarifies accountability.

MISSION STATEMENT: State the mission of this organizational element.

AUTHORITY	Authority breaks down into three areas.
A. SUPERVISORY	a) Supervisory. Can he hire, promote, discipline? What are the limitations?
B. MATERIAL RESOURCES	b) Material resources. Can he determine equipment needs, procure supplies?
C. PROGRAMS AND PROCEDURES	c) Programs and procedures. Can he establish internal operating procedures? Make organization changes? Establish work schedules?

RESPONSIBILITY	Some questions that can be asked concerning responsibility:
A. DUTIES	a) What are the major duties of this position?
B. PERFORMANCE STDS.	b) What are the standards of performance for this position?
C. COORDINATION	c) With whom must he coordinate before certain types of decisions can be made?
D. INFORMATION	d) Who must be informed as to decisions made, or data received or submitted?

ACCOUNTABILITY	Accountability includes:
A. REPORTING CHANNELS	a) To whom does he report for each area of responsibility?
B. REPORTING REQUIREMENTS	b) How must he report? On what items? (Management by exception)
C. INSPECTION ELEMENTS	c) What are established relationships with inspection elements -- GAO, Inspector General, Army Audit Agency?

When a person steps into the manager's job, the Position Guide can be enlarged to provide explicit guidance based upon the incumbent's ability and experience (e.g., "full authority for individual capital expenditures up to $5,000"). These provisions may be changed as the person grows with the job.

Delegation

It has been observed that a manager goes through three phases in each job he holds. They can be summarized as:

1. Take hold
2. Hold on
3. Let go

As he assumes new duties, he "takes hold", learning and developing; for a while he will "hold on", performing them personally; eventually, he should "let go" -- delegate these duties.

All too often, the manager stops after the second point, continuing to "hold on" to the duties, and any of a number of symptoms begin to appear: spending longer hours at the office or taking work home; not enough time for the important jobs and meeting deadlines takes an all-out effort; there is too little time to think and plan; the work seems routine and consumed in detail; subordinates lack drive; he routinely feels under pressure. These typically indicate too great an attempt to do everything personally -- a failure to delegate.

Even when a manager recognizes the need for more delegation, there may be strong reluctance to take the action. One reason may be a fear of strong subordinates who learn parts of the boss' job and move up fast. But the boss pays a high price for not developing his subordinates; his own advancement in the organization may well depend upon having a qualified replacement for him in his present job.

A second reason is the simple reluctance to give up any of his authority. But actually, the manager does not reduce his authority by delegating it; the process has been compared to a teacher who shares his knowledge with a student while retaining the full knowledge himself. Thus the manager still has his full authority although he now exercises it indirectly, and he also has the power to retract the delegation.

But probably the major reasons for the manager's reluctance to delegate is the fear that subordinates might make mistakes that would embarrass him, or at least cause him more work than if he had done it himself at the start. Particularly if earlier attempts at delegation failed, the manager is reminded of the old adage that "if you want a job done right, do it yourself." But he can materially improve the chances for successful delegation by a combination of forethought and follow-up.

The starting point is for the manager to decide what to delegate. He must, of course, retain those jobs which only he can do. Of the jobs remaining, the extent of delegation will be based upon the existing workload, the abilities of subordinates, and his ability to maintain effective control. The delegation should also include jobs which the manager might do better but which don't really require his level of expertise.

A clear understanding between superior and subordinate is essential. It should include exactly what is being delegated, what the objectives of it are, the deadline and its impact on other work, the limitations on the subordinate's range of actions, what decisions are reserved to the boss and what decision-making and order-giving authority have been delegated to the subordinate. Careful planning and extra time spent with the subordinate at this point are the best insurance for preventing the mistakes mentioned earlier.

Finally, skillful follow-up is needed. Close supervision may or may not be desirable in a given situation, but open channels of communication are invariably vital. In addition to progress reports and scheduled discussion, the subordinate must learn to inform his superior when a problem becomes apparent, not after it becomes critical; the additional resources which the manager can bring to bear achieve best results while the problem is still small.

Effective delegation is not easy, but the benefits to the manager are well worth the effort: he gets the job done, he is freed for other work, and he develops the subordinate at the same time.

THE PRESENTATION

The presentation phase of a project is a critical point. Regardless of the technical quality of the proposal, unless approval and implementation are obtained, no benefit to the organization can result and the time and effort invested in the study are wasted.

There are two types of presentation, written and oral. Both have advantages and limitations and as far as possible, should be used in combination. An oral presentation backed up by a written report is normally preferred by approving managers and offers the analyst the best chance of success in "sellinq" the proposal. The oral presentation offers the analyst an opportunty to achieve face-to-face contact and generate enthusiasm, and it permits flexibility in presentation and discussion. The written report supports and documents the oral presentation.

The presentation is essentially a service to the approving manager. Its basic purpose is to effect a translation of the mass of factual data contained in the various documents, worksheets, analyses, etc., into some fundamental relationships and comparisons which can form the basis for a managerial decision. In the process of making this translation, the analyst presents his findings, conclusions and recommendations to some manager at a level of authority high enough to make a decision, and attempts to get approval to implement these recommendations. In this process information and facts are not enough. They must be skillfully presented and related to the manager's interests in such a way as to induce approval.

Presentations of the same proposal, at various stages in its evolution and development, are sometimes made at various levels in the organization. There may be presentations at the worker level and to subordinate managers prior to a presentation to the approving manager. The amount of detail will vary with the level and the presentation must be adapted to the objectives and interests of each level. Presentations at the lower levels are primarily for the purpose of getting reactions and suggestions about tentative thinking, selling ideas, spotting weak or invalid recommendations, and identifying points which may be controversial. At this level the maximum degree and volume of detail data are gone over. The approach and tone may be quite informal and similar to that of the interview. The presentation to the approving manager will be less informal, highly summarized, but with adequate supporting data, and geared to predetermined interests and information requirements.

The psychological considerations are similar at any level but are usually given more attention during the preparation of top level presentations (for approval). Some of these considerations are the interests, prejudices, knowledge level, temperament, time, and other problems of the receiver. Also, attention is given to the atmosphere in which the presentation will be made. Approval action is made as easy as possible. Basically, a "warm sell" approach is used.

A significant amount of prior planning goes into either a written or oral presentation. This planning is principally to locate and capitalize on the theme of the proposal and then relate this theme to the psychological considerations mentioned above. Decisions are made as to the type of action desired, and the major points of recommendation, benefit and cost are identified and ranked. The support of proposals is fundamentally along the lines of a comparison of present with proposed, good vs. bad, before and after, etc.

The Written Report

Requirements for written reports usually include some or all of the sections described below.

The Title Page. A cover sheet which contains the title of the project, any identifying control numbers, date, transmittal message (if any is required), and signatures of submission, coordination and approval.

Table of Contents. Self-explanatory.

Problem Statement. The original problem and any subsequent modifications, who requested the project, organizational elements involved, limitations, and factors for maximization.

Summary. A briefing on conclusions and recommendations, ranked in order of importance. This section is primarily for managers interested in quickly determining the substance of the report.

Benefits. Favorable results which will accrue to the organization as a result of approving the recommendations. They should compare favorably to the factors of maximization in the problem statement.

Cost Impact. Economic considerations of present costs, proposed costs and costs of implementing the proposal.

Action Program. Actions necessary to implement the proposal.

Non-concurrences. Objective statement of points of disagreement, persons involved (by position) and supporting opinions. Details may be included as attachments.

Main Body. Detailed discussion of facts and logic used in arriving at summary conclusions, recommendations and benefits. This section is primarily for detailed explanation and consideration.

Credits. Expressions of appreciation for assistance during the project. Mention by name and position.

Attachments. Detailed tables, charts, diagrams, layouts, either supporting facts or documenting proposals in the report proper.

The Oral Presentation

The oral presentation is built up around a management decision pattern. This pattern is a series of mental phases that occur during the presentation. These phases are orientation, problem situation, proposal, discussion, and decision. They are preceded by a prior planning period and may be followed by presentation of an action document.

During the orientation phase, the listener settles down and mentally "tunes in" the presentation area. At this time the project title and organizational involvements are presented, with sufficient background to provide context for the listeners.

In the problem situation phase the problem statement is reviewed and the difficulties on which the study focused are summarized.

The proposal phase follows as the proposed organization is explained. Emphasis is on how the proposal differs from the present and on how the changes would bear on the problem areas and the factors for maximization in the problem statement.

As the advantages, benefits, and costs of the proposal are highlighted, the discussion phase begins. Here questions are covered. The initial presentation should cover as many potential questions as possible.

The next, and crucial, phase is the decision. All prior phases have been leading up to this point. If the decision is for approval, the action document will be presented.

During the prior planning phase the analyst attempts to locate the main theme in the proposal. Next he tries to gear every aspect of the proposal to the desired reaction and the environment in which the presentation will occur. This environment is made up of such factors as who will be present, the attitude of those present, their knowledge level and backgrounds, and any specific personality problems inherent in the particular area.

The use of visual or graphic materials can greatly enhance the effectiveness of an oral presentation. They should be used with discretion, however. Their proper function is to highlight key points, to clarify in those instances where a picture is more effective than description, and to help visualize relationships or comparisons. The temptation to overuse the graphics must be avoided; a guide used by some experienced speakers is one pictorial representation for each three to five minutes of "talking" time.

Effective visual aids include organization charts, bar, line, and pie charts, stick-figure cartoons, or just a list of key points. The most effective graphic aids get their messages across in about 30 seconds. They are uncluttered by excessive detail and must be readable to everyone in the room. The graphics don't have to be flawlessly professional--you want to impress the approving manager with your thinking, not your art work.

Preparation for this crucial phase of the project cannot be taken lightly. Here are some pointers:

1. Be sure the loose ends are tied before going into the presentation. Have costs and savings been verified by the Comptroller or other authoritative source? Have necessary concurrences been obtained? Find about those in the audience--what they already know of the project, what they will be interested in, what level of detail is appropriate, what things (cost, quality, speed, etc., from the factors for maximization) are important to them, and shape the presentation to their interests.

2. Practice the presentation. Rather than reading or memorizing a speech, prepare and work from an outline, or work from points on the graphics. Have several complete run-throughs and be sure to check for timing, leaving part of the allocated time for questions and discussion.

3. Check the physical facilities--a convenient arrangement for the graphics, enough chairs, ash trays, temperature control, prevention of interruptions, etc.

4. Start with an attention-getting opening statement or question, then follow a logical sequence of topics. Two basic approaches are to state the evidence and findings first and lead the audience step-by-step to your conclusion; or state the conclusion first and then support it. In any case, the sequence must be from the simple to the complex or the known to the unknown. A light touch or a little humor keeps interest up and breaks tension. Finally, a concise summary of the major points ties it all together.

5. Take advantage of feedback from the audience, especially the decision-maker(s). Watch for positive or negative reactions, signs of boredom, confusion, or irritation, and adjust your presentation accordingly--skip some details and move along more rapidly, restate and clarify, or ask for questions and comments.

Proposals for changes to the organizations are just one of many important activities competing for the time and attention of top management. An effective oral presentation supported by a written report will make the best use of that limited time and attention and will give the analyst the best chance to see his proposals implemented.

IMPLEMENTATION AND FOLLOW-UP

Too frequently, analysts present their conclusions and recommendations without giving adequate attention to the steps involved in implementing those recommendations. Some may feel that implementation is the responsibility of the line and telling the line how to do it would be presumptuous of them; others may simply be burned out at meeting the deadline for the study. Whatever the reason, many technically sound, officially approved study recommendations never fully materialize due to poor implementation, and an implementation plan should be considered an essential part of a complete study.

When a manager approves the recommendations, the next question is likely to be, "Now, how do we start?" Failure to have an answer means delaying the action and losing the momentum while a reply is prepared -- a reply that may begin to resemble another study.

Content of an Implementation Plan

An implementation plan should give, for each recommendation, these guides:

1. The priority of the recommendation in relation to the other recommendations--what is considered most urgent in solving the problem for the organization.
2. The sequence of steps to be carried out--the individual actions that must be taken to achieve full and complete operation.
3. The schedule of steps - the starting time and estimated length of the actions required. (A simple Gantt chart can be most helpful).
4. The personnel responsible for the actions - those individuals who must accomplish or monitor the actions to achieve implementation.

There are two basic approaches to bringing about change: one is to force the entire change all at once, a means often used when a new manager is brought in to clean up a trouble spot. This gets the change installed quickly but is likely to cause confusion and low morale until the dust settles and everyone gets used to it. The other means is to bring in the changes gradually over a period of time, easing them in at a rate easy for the organization to absorb. But, as the trend becomes apparent, people suffer from rumors and distracting worry about what changes will be next, and how will they affect them. Often, a desirable approach is to announce all that will be done and make some crucial changes, but schedule the rest out over a period of time.

Difficulties During Implementation

One major difficulty may be continuing resistance to change, despite the persuasion efforts during interviews, indeed, despite official approval and orders for implementation. The analyst must be sensitive to the fact that this resistance can be either open or subtle, and may be for unspoken personal reasons, such as threatening pleasant working relationships or status in the informal organization. This provides a tough test for the analyst's interpersonal skills, and, although there is official sanction for the changes, calling for higher level power for support should be kept in reserve and used sparingly.

Another pitfall is optimism in scheduling, resulting in unrealistic time estimates for completing the implementation actions and getting the new organization functioning smoothly. The plan should look for periods of low workload when more complete attention can be devoted to the conversion, with ample lead time for necessary funding, physical moves of facilities and personnel, acquisition of new equipment, recruitment and training of new personnel, and establishing new procedures.

Another difficulty in implementation is the analyst's attitude and energy level. After the project is completed, the presentation is given, and the approval is obtained, there is a let-down, a feeling that the job is done, and the analyst is ready to leave it and move on to other things. But the job isn't over yet.

Role of the Analyst

Although the final responsibility for actually accomplishing the reorganization belongs to the line organization, the analyst has vital services to offer, especially at the start of the implementation. Only the analyst has the full understanding of the logic, analysis, and total picture involved, and this should be transmitted to the operating personnel. This is not to say that the analyst takes over as supervisor; this must be avoided. The proper role is as activator and consultant, helping to clarify, explain, and guide the actions in the plan. The role of the analyst, active at first, should diminish, and phase out as rapidly as practicable.

Follow-Up

After implementation is completed, a follow-up review should be made by the analyst. This review should be scheduled for a few weeks after completion of implementation and again approximately six months later.

The object of these reviews is to determine whether the proposals have been fully implemented, whether all instructions are clear, and especially, whether benefits are really materializing as planned.

If any modifications are necessary, the analyst should notify the approving managers and request support for them, especially if they involve recommendations not approved but still supported by the team. The follow-up may also find problems not within the scope of the present study but which require the attention of the analyst or others. These should be brought to the attention of top management.

If the study has been conducted in a professional manner with the full support of the commander, the entire organization should benefit from the effort.

BASIC TERMINOLOGY

ORGANIZATION PLANNING: Determining basic relationships necessary to carry out a mission -- creating framework for effective operations. Organization Planning determines what functions an organization requires, relates these functions in a systematic fashion, assigns authorities and degrees of responsibilities, and installs and periodically reviews organization plans.

ELEMENTS OF STRUCTURE

DEPARTMENTATION: The process of grouping activities into organizational elements for the purpose of managing them.

FUNCTION: Any activity that is necessary for the accomplishment of the organization's objectives and that can be clearly set apart from other activities.

MISSION STATEMENT: Explains why we are in business; our reason for existence.

OBJECTIVES: Goals of performance; desired results; expectations.

POLICIES: Decisions which represent guides to action.

ELEMENTS OF POSITION

ACCOUNTABILITY: The requirement for reporting to higher authority the extent to which one has discharged one's responsibility with respect to quantity, quality, time and expense.

AUTHORITY: The right to command obedience and the power to enforce that obedience.

DELEGATION: Creates the right or power to act for another person.

RESPONSIBILITY: The obligation to perform assigned functions with the maximum practical effectiveness and efficiency.

STRUCTURAL DIMENSIONS OF AN ORGANIZATION

CENTRALIZATION: The locus of decision-making authority at high levels of the organization.

COMPLEXITY: The extent of differentation within the organization -- degree of specialization, number of levels, geographic dispersion.

DECENTRALIZATION: The systematic and consistent delegation of authority for decision-making to lower levels of the organization.

FORMALIZATION: Degree to which an organization relies on rules and procedures to direct the behavior of employees.

HORIZONTAL DIFFERENTIATION: The extent of job specialization and departmentation. An organization becomes more complex as it establishes larger numbers of different occupations requiring specialized knowledge and skills.

VERTICAL DIFFERENTATION: The number of organizational levels between top management and the operating level.

LINEAR RESPONSIBILITY CHARTS

Linear responsibility charting is a versatile and adaptable data recording method which can be used during the organization study. Basically, a linear responsibility chart is a cross-reference of people and work. However, it takes an important step beyond the usual cross-reference chart by indicating the role and degree of involvement of various individuals and organizational elements in relation to specified items of work. It shows not only who has the basic responsibility for accomplishing the work, but also the host of interrelated responsibilities that go into accomplishment: inputs of others, coordinations, consultations, supervision, etc. It presents, in a condensed graphic form, much of the information normally associated with organization charts, position descriptions, methods and procedures. It allows the analyst to obtain a clear picture of the existing conditions rather than a collection of different and perhaps vague or conflicting traditional management documents.

Construction of the Linear Responsibility Chart

In the layout of the chart, the organizational lineups go across the top while the items of work are listed down the left side. The symbols and numbers, defined below, are placed in the blocks as appropriate.

Symbol	Definitions
X	WORK IS DONE -- This means that the activity or function described is actually performed by the individual designated.
1	GENERAL SUPERVISION -- This covers the important aspects of planning, delegation, and control of the function described. It is more in the nature of administrative work where hour-to-hour direction is neither practical nor proper.
2	DIRECT SUPERVISION OVER WORK DONE -- This signifies a more immediate check on the activity as carried out by a subordinate.
3	PROVIDES INPUTS -- This indicates that input or support is provided to the person with the "Work is Done" responsibility.
4	DECISION ON POINTS SPECIFICALLY SUBMITTED -- This applies to decision-making activities either where a specialist must be approached for technical decisions which affect a part of the overall problem or

Symbol	Definitions
	where delegation is extensive and only occasionally are decisions referred up to supervision. (Decision must be followed.)
5	PERSON MUST BE CONSULTED -- Before a decision or an action is taken, the individual marked with this symbol must be consulted. The opinion must be heard through the advice need not be followed.
6	PERSON MUST BE NOTIFIED -- Upon making a decision or taking an action, the individuals marked with this symbol must be advised. Knowledge of the action or decision will assist them in carrying out their own responsibilities.
7	PERSON MAY BE CALLED IN FOR EXCHANGE OF VIEWS -- This is self-explanatory. The emphasis is on "may". There is no need to consult, or right of consultation. However, it is likely, pertinent, or normally done.

In the vertical columns across the top, the people or units of the organization are entered. They are listed from left to right showing command through the performance or work level. If it is desirable to chart the total system involved, then different levels of supervision may be shown.

Down the left side of the chart, the items of work are listed in sequence on the horizontal lines. Usually, this information is entered as the analyst interviews the people in the organization. The work element could, however, be listed in advance if the system or method is known.

To obtain maximum value from linear responsibility charting, the analyst must be quite specific. Generalizations such as "I am responsible for this," or "We take care of that" will not be adequate. The analyst must search until satisfied that the exact degree of responsibility involved, and the options that may be encountered, are thoroughly understood.

In writing the items of work, each must begin with an action verb such as "determine", "perform", or "issue". The item must be brief, definite, complete, and unique.

The symbols and definitions are flexible. Letters, numbers, colors or designs can be used with equal effectiveness, and the definitions can be reconstituted for more exact application to a specific situation. However, the number of symbols should be limited to avoid the addition of so much information that it would clutter the chart. If more information appears to be needed, a different level of charting may be appropriate.

Use of Linear Responsibility Charting

The linear responsibility charting technique has many uses. For example, as an analyst reviews existing documentation, a linear responsibility chart may be prepared which prescribes how a function or procedure is to be accomplished. During the formal fact-finding phase, it can be used to record how the function or procedure is actually accomplished. During the analysis phase, linear responsibility charting can be used to define and clarify problem areas and assist in the design of conclusions and recommendations in the reports and presentation phase. During implementation, linear responsibility charting of the new procedure will assist in training involved personnel in the new work procedure.

A sample chart (Figure A-1) follows:

SAMPLE LINEAR RESPONSIBILITY CHART

To Establish Production Lines for Hand Guns	Director	Comptroller Office	Management Engineering Office	Public Works Office	Quality Assurance Branch	Safety Branch	Design Division	Production Division	Storage Distribution Division	
Commit Funds	1	X	6	6				6	6	
Obtain Drawings			6	6	6		X			
Prepare Bill of Material			6				X	3	3	
Prepare SOP			X		7	5				
Install Tooling			3	X		5	3	3	3	
Set Up Line			3	X	5	5				
Operate Control Clerk					X		3	3	3	
Stop Line if Necessary	6		6		X		6	6	6	
Reoperate Line	1				3		6	X	6	
Perform Final Inspection					X		3	3	3	

X = Work is done
1 = General supervision
2 = Direct supervision over work done
3 = Provides inputs
4 = Decisions on points specifically submitted
5 = Person must be consulted
6 = Person must be notified
7 = Person may be consulted

Figure A-1

WORK DISTRIBUTION CHART

As the title indicates, the work distribution chart shows how work in a work center is distributed among the personnel of that center. The Work Distribution Chart, DD Form 1724 (Figure A-4) indicates precisely the work performed during a period of time (usually a week) and who performed it. With the chart, the first line manager has a useful device for comparing what is actually done with what should be done.

The work distribution chart is useful in two areas: analysis and costing. In analysis, it is used to point up poor distribution of work loads, lack of specialization of function, poor utilization of individual skills, and duplication of function. In the costing of operations, it serves as a basis for determining average costs and total cost per activity. The costing is done by applying salary figures to each employee and allocating an appropriate percentage of the total cost to each activity. The preparation of a work distribution chart results in a mountain-top view needed for analyzing a situation without an overwhelming volume of detail.

Before the work distribution chart can be developed, two other forms, a task list and an activity list, must be prepared. Both lists are essentially work sheets designed to obtain and organize information before it is recorded on the work distribution chart.

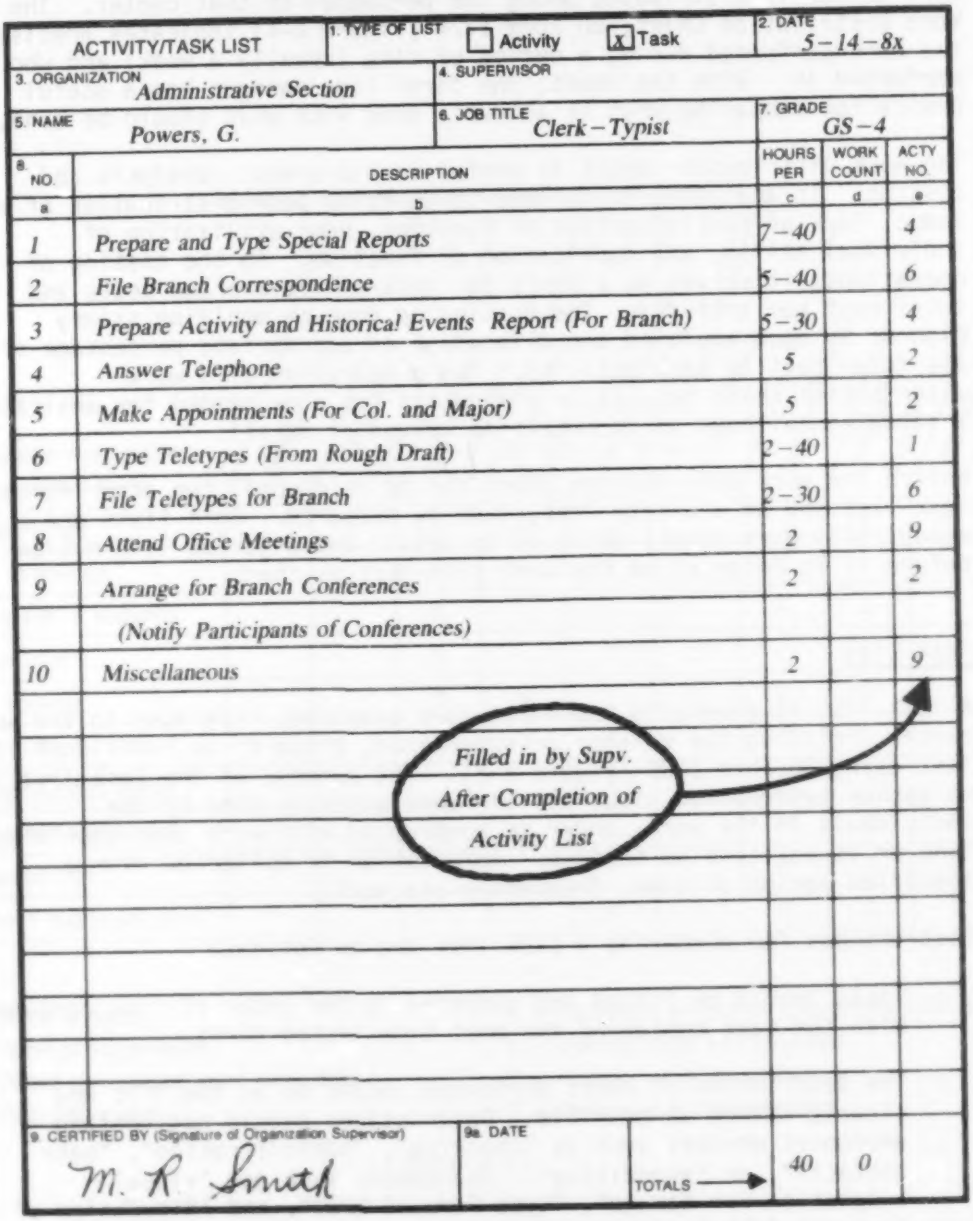
Task List

A task list is generally the first form prepared. Everyone in the work center including the manager or supervisor, prepares an individual task list using DD Form 2030 (Figure A-2). The purpose of the task list is to gather information about all the work actually done by the individuals in the work center as contrasted with work that should be done or is believed to be done. Information is collected over a specified period of time, frequently one week.

Instructions for preparing a task list are as follows:

- Tasks should be listed and numbered in the order of time consumed with the task consuming the most time listed first.
- The description of tasks performed should be as specific and clearly stated as possible. Descriptions should not contain ambiguous phrases such as "checking", "administration", "make contacts", or "expediting". Statements such as, "visual inspection for damage", "type Form DD 2030", and "discussion of contract #61A-B with Mr. Frank" are much more desirable.
- The number of hours spent on each task during the specified time period should be recorded in the column headed "hours per".

TASK LIST EXAMPLE



ACTIVITY/TASK LIST	1. TYPE OF LIST ☐ Activity ☒ Task	2. DATE *5-14-8x*
3. ORGANIZATION *Administrative Section*	4. SUPERVISOR	
5. NAME *Powers, G.*	6. JOB TITLE *Clerk-Typist*	7. GRADE *GS-4*

8. NO. a	DESCRIPTION b	HOURS PER c	WORK COUNT d	ACTY NO. e
1	*Prepare and Type Special Reports*	*7-40*		*4*
2	*File Branch Correspondence*	*5-40*		*6*
3	*Prepare Activity and Historical Events Report (For Branch)*	*5-30*		*4*
4	*Answer Telephone*	*5*		*2*
5	*Make Appointments (For Col. and Major)*	*5*		*2*
6	*Type Teletypes (From Rough Draft)*	*2-40*		*1*
7	*File Teletypes for Branch*	*2-30*		*6*
8	*Attend Office Meetings*	*2*		*9*
9	*Arrange for Branch Conferences*	*2*		*2*
	(Notify Participants of Conferences)			
10	*Miscellaneous*	*2*		*9*

Filled in by Supv. After Completion of Activity List

9. CERTIFIED BY (Signature of Organization Supervisor) M. R. Smith	9a. DATE	TOTALS →	*40*	*0*	

Figure A-2

- The number of items or tasks processed during the period should be entered in the work count column. Usually the items to be counted will be specified by an analyst or a supervisor. Countables may be pay vouchers processed, supply requisitions filled, trucks repaired, or personnel records audited. All items critical to the work center's mission should be counted. Infrequent or one-of-a-kind operations are normally ignored unless they require a large number of staff hours.
- Those tasks not performed every week should be listed separately and their time prorated. For example, a task which requires four hours a month would be listed as one hour per week. Normally, this is done on the bottom half of the form.

An example of a completed Task List is shown in Figure A-2.

Activity List

The activity list shows the activities assigned to the particular work center and is prepared using DD Form 2030. The most time consuming activity is listed first with the others in order of decreasing time requirements. Each activity is numbered sequentially. When all the activities have been recorded, the activity list is compared with the task lists prepared previously by the work center employees. Each task should be a part of one of the activities on the activity list. The appropriate activity number for each task is then recorded in the column headed "Activity No." on the task list. With the information organized in this fashion, the work distribution chart is relatively easy to complete.

Specific instructions for preparing the activity list are shown below.

- Activities should be listed in order of time used or of importance, and numbered sequentially. Activity number one should be the work center's main activity.
- List all major activities required to fulfill the mission assigned to the organization.
- Activity descriptions should be accurate, brief, and concise.

An example of a completed activity list is shown in Figure A-3.

Work Distribution Chart

The work distribution chart summarizes each person's tasks and shows the relationship of these tasks to the total work of the work center.

To prepare the chart, the analyst or supervisor uses all the individual task lists and the activity list. The procedure for completing the form is as follows:

- Fill in the blanks at the top of the chart.
- In the "Activity No." and "Activity" columns of the chart, list the first (most important) activity.

To Establish Production Lines for Hand Guns	Director	Comptroller Office	Management Engineering Office	Public Works Office	Quality Assurance Branch	Safety Branch	Design Division	Production Division	Storage Distribution Division
Commit Funds	1	X	6	6				6	6
Obtain Drawings			6	6	6		X		
Prepare Bill of Material			6				X	3	3
Prepare SOP			X		7	5			
Install Tooling			3	X		5	3	3	3
Set Up Line			3	X	5	5			
Operate Control Clerk					X		3	3	3
Stop Line if Necessary	6		6		X		6	6	6
Reoperate Line	1				3		6	X	6
Perform Final Inspection					X		3	3	3

X = Work is done
1 = General supervision
2 = Direct supervision over work done
3 = Provides inputs
4 = Decisions on points specifically submitted
5 = Person must be consulted
6 = Person must be notified
7 = Person may be consulted

Figure A-1

ACTIVITY LIST EXAMPLE

ACTIVITY/TASK LIST	1. TYPE OF LIST ☒ Activity ☐ Task	2. DATE 5–14–8x
3. ORGANIZATION Administrative Section	4. SUPERVISOR M.R. Smith	
5. NAME	6. JOB TITLE	7. GRADE

8. NO.	DESCRIPTION	HOURS PER	WORK COUNT	ACTY NO.
a	b	c	d	e
1	*Preparation of Correspondence*			
2	*Reception and Arrangements*			
3	*Recording of Conferences*			
4	*Make Reports*			
5	*Maintain Regulations Library*			
6	*Maintain File*			
7	*Make Travel Arrangements*			
8	*Administration and Supervisor*			
9	*Miscellaneous Activities*			

9. CERTIFIED BY (Signature of Organization Supervisor)	9a. DATE	TOTALS →			

- Enter each person's name, position, and grade across the top of the work distribution chart. Enter the supervisor's name first, followed by the other names in descending order of responsibility. Additional forms may be taped together if more space is needed.
- List tasks, work count, and time data from each worker's task list that relate to activity number one.
- Skip a line below the longest individual task list for that activity before listing the tasks of the next activity.
- Enter the total hours worked during the week on the bottom line under each "Hours per Week" column. Note: Do not total each "work count" column because each entry represents different work units.

An example of a completed work distribution chart with some analytical notes is shown in Figure A-4. The actual size of the form is 10 1/2" x 20" rather than the size illustrated.

Analysis

After completing the chart, the analysis should include, but need not be limited to, the following:

- Which activities take the most time? Are they the ones which should take the most time? Normally, the most time should be spent on activities determined to be related to the major mission of the organization.
- Is there misdirected effort? Is the work center spending too much time on relatively unimportant activities or unnecessary work? Instances of misdirected effort are frequently found in "miscellaneous" or "administrative" categories. The time wasted by any one individual may be small, but it often becomes sizable when several persons are involved. If the chart shows that more time is being spent on an activity than the supervisor or analyst thinks should be, determine the reason(s). Circle such staff-hour totals to mark them for future flow process charting (this technique will be covered later).
- Are skills being used properly? Are the skills of the workers being used in the best possible manner, or are special skills and abilities being wasted? Individuals with higher skills should not be required to perform tasks which could be performed by less skilled workers. It is also wasteful to have individuals working beyond their capabilities because of the longer time required and the increased risk of costly mistakes.

best copy available

- Are individuals doing too many unrelated tasks? A large number of activities recorded in one person's column on a work distribution chart usually indicates too many separate and unrelated tasks are being performed. This can result in lost motion and a waste of person-power. Few people can perform a variety of tasks equally well. Greater efficiency results when related tasks are assigned to one individual.

- Are the tasks spread too thinly? Performance of the same task by more than one individual may indicate unnecessary duplication of effort.

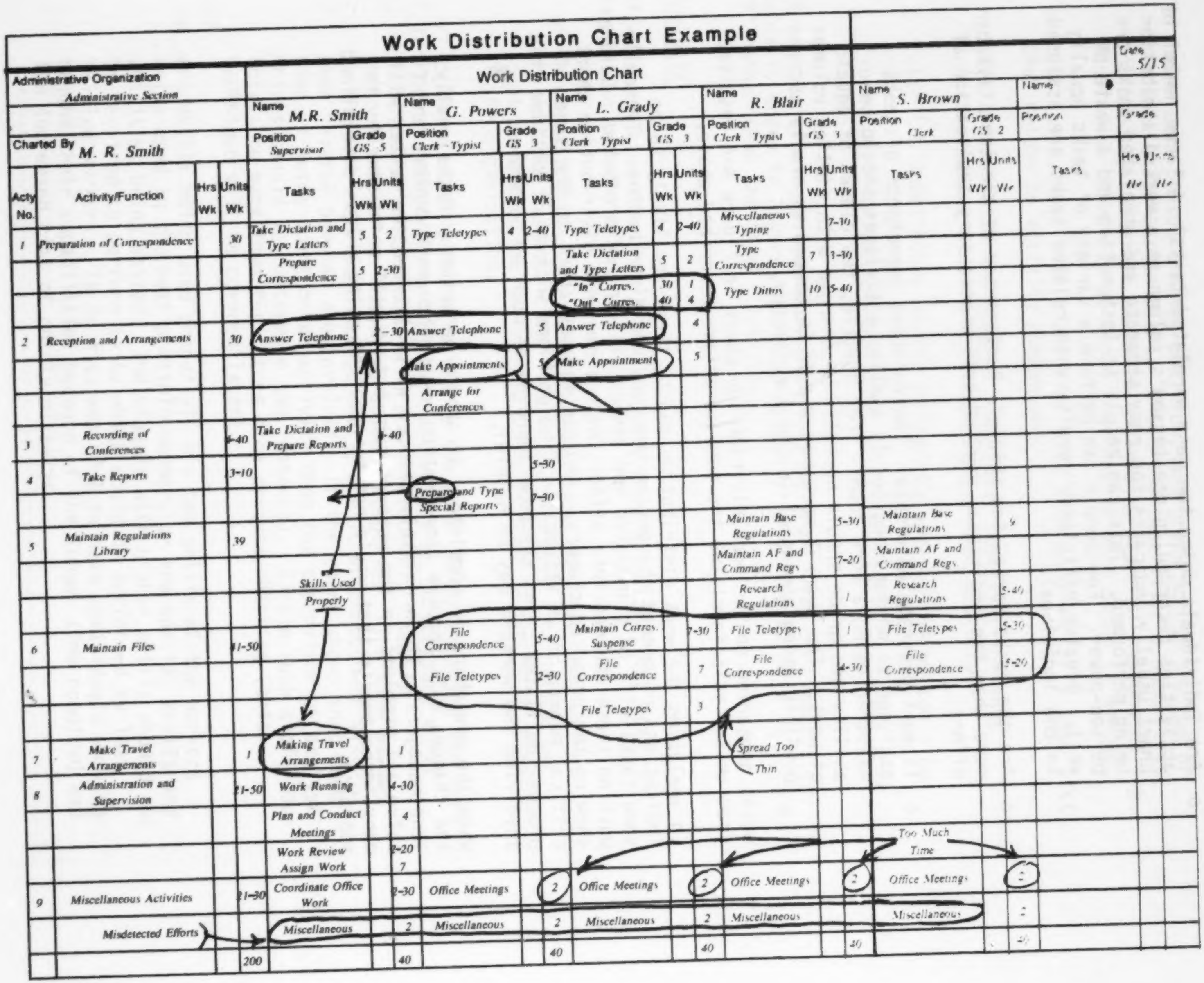
- Is work distributed evenly? The relative importance of tasks assigned to persons engaged in similar activities should be measured using a work count. For example, two clerks of equal ability and grade should normally be charged with similar volumes of work. The overall workload should be spread as evenly as possible among personnel in the work center.

Notes appearing on the work distribution chart in Figure A-4 resulted from an analysis involving the considerations described above.

In analyzing the work distribution chart, there are likely to be indications of needed changes in the workload distribution. Typically some tasks will be eliminated and others will be redistributed. Before putting these changes into effect, make a new work distribution chart showing the proposed changes. Analyze the new chart in the same critical manner in an attempt to find problems with it. Continue this process until the chart has been improved as much as possible. Involving the workers may be helpful.

When the new chart is completed, it should be tested. Occasionally, the changes will require coordination with other work centers and first line managers. It is unlikely the new work distribution center will solve all problems in the work center, but it will point the way to many improvements that would not be apparent using a less disciplined approach.

Work Distribution Chart Example



Work Distribution Chart

Administrative Organization: *Administrative Section*
Charted By: *M. R. Smith*
Date: *5/15*

				Name: *M.R. Smith* Position: *Supervisor*	Grade: *GS 5*		Name: *G. Powers* Position: *Clerk - Typist*	Grade: *GS 3*		Name: *L. Grady* Position: *Clerk Typist*	Grade: *GS 3*		Name: *R. Blair* Position: *Clerk Typist*	Grade: *GS 3*		Name: *S. Brown* Position: *Clerk*	Grade: *GS 2*		Name: Position:	Grade:	
Acty No.	Activity/Function	Hrs Wk	Units Wk	Tasks	Hrs Wk	Units Wk	Tasks	Hrs Wk	Units Wk	Tasks	Hrs Wk	Units Wk	Tasks	Hrs Wk	Units Wk	Tasks	Hrs Wk	Units Wk	Tasks	Hrs Wk	Units Wk
1	*Preparation of Correspondence*		*30*	*Take Dictation and Type Letters*	*5*	*2*	*Type Teletypes*	*4*	*2-40*	*Type Teletypes*	*4*	*2-40*	*Miscellaneous Typing*		*7-30*						
				Prepare Correspondence	*5*	*2-30*				*Take Dictation and Type Letters*	*5*	*2*	*Type Correspondence*	*7*	*3-30*						
										"In" Corres. *"Out" Corres.*	*30* *40*	*1* *4*	*Type Dittos*	*10*	*5-40*						
2	*Reception and Arrangements*		*30*	*Answer Telephone*		*2-30*	*Answer Telephone*		*5*	*Answer Telephone*		*4*									
							Make Appointments		*5*	*Make Appointments*		*5*									
							Arrange for Conferences														
3	*Recording of Conferences*		*-40*	*Take Dictation and Prepare Reports*		*-40*															
4	*Take Reports*		*3-10*						*5-30*												
							Prepare and Type Special Reports		*7-30*												
5	*Maintain Regulations Library*		*39*										*Maintain Base Regulations*		*5-30*	*Maintain Base Regulations*		*9*			
													Maintain AF and Command Regs		*7-20*	*Maintain AF and Command Regs.*					
				Skills Used Properly									*Research Regulations*		*1*	*Research Regulations*		*5-40*			
6	*Maintain Files*		*1-50*				*File Correspondence*		*5-40*	*Maintain Corres. Suspense*		*7-30*	*File Teletypes*		*1*	*File Teletypes*		*5-30*			
							File Teletypes		*2-30*	*File Correspondence*		*7*	*File Correspondence*		*4-30*	*File Correspondence*		*5-20*			
										File Teletypes		*3*	*Spread Too Thin*								
7	*Make Travel Arrangements*		*1*	*Making Travel Arrangements*		*1*															
8	*Administration and Supervision*		*1-50*	*Work Running*		*4-30*															
				Plan and Conduct Meetings		*4*															
				Work Review *Assign Work*		*-20* *7*										*Too Much Time*					
9	*Miscellaneous Activities*		*1-30*	*Coordinate Office Work*		*-30*	*Office Meetings*		*2*	*Office Meetings*		*2*	*Office Meetings*		*2*	*Office Meetings*		*2*			
	Misdetected Efforts			*Miscellaneous*		*2*	*Miscellaneous*		*2*	*Miscellaneous*		*2*	*Miscellaneous*			*Miscellaneous*		*2*			
			200			*40*			*40*			*40*			*40*			*40*			

SUMMARY AND CHECKLIST

Departmentation

1. MISSIONS, PROGRAMS, AND FUNCTIONS SHOULD BE CLEARLY STATED. The mission of the organization determines the type of programs and functions to be performed. It is essential that they be clearly stated, preferably in writing. Without a knowledge of the mission of an organization, it would be extremely difficult to evaluate its effectiveness and efficiency.

2. ALL NECESSARY FUNCTIONS SHOULD BE ASSIGNED TO SPECIFIC UNITS OF THE ORGANIZATION. An organization exists for one purpose -- to make sure that all essential functions to accomplish the mission are assigned and carried out. An organization which excludes necessary functions, major or minor, is seriously handicapped in achieving success.

3. EACH FUNCTION SHOULD BE ASSIGNED TO ONLY ONE ORGANIZATIONAL UNIT.

   a. The violation of this principle is the cause of duplications and overlapping in operations. Very often these conditions are created through lack of knowledge of the fact the same work is being performed by another part of the organization. For example, there is the case of an operating unit of an organization which was completely duplicating personnel records maintained by the Personnel Office, under the impression that this was normal activity of operating elements of the organization. One of the most common fields for duplication lies in files and records can serve the required purposes. The elimination of these conditions requires constant attention and organization review since they are continuously being created.

   b. There are, of course, individual instances when duplication of operations may be justified. The physical location of various buildings at an installation may necessitate decentralizing reproduction operations or files and records operations.

4. THE NATURE OF THE ACTIVITY AT EACH ORGANIZATIONAL LEVEL SHOULD BE THE DETERMINING FACTOR IN DECIDING UPON THE TYPE OF ORGANIZATION.

   a. In order to determine the most effective type of organization at any level, the question of specialized skill or knowledge required and the degree of coordination and control necessary in the handling of the work must be considered. If the knowledge required is primarily of a functional nature -- for example, accounting, storage, etc., specialized knowledge of the function is needed. In other activities -- procurement, for example -- an overall knowledge of the product itself is necessary.

   b. If the emphasis is placed on a uniform handling of functions with respect to all products, the functional type of organization is suitable. Where the emphasis is placed on the product, or where the product is specialized in nature and requires a high degree of coordination and control at every state of the activity (as in automotive vehicles, small arms, and artillery), the product pattern may be more desirable.

   c. This is a matter requiring careful analysis and an accurate determination as to whether the function is to be subordinated to the product being handled, or whether the product itself is of such a nature that it can be subordinated to the functions necessary in its handling.

   d. In addition to the above, such factors as size and performance of the organization, availability of space and personnel, processes to be utilized (mechanical or manual), philosophy of top management will influence the type of organization.

   e. In arriving at any decision, the problem is to determine which organization will most efficiently attain the end objectives in the simplest manner.

5. OVERORGANIZATION SHOULD BE AVOIDED. No organization unit should be set up unless it has a distinct job to perform. A sufficient volume of work to occupy enough people to justify a supervisor should also be required before a separate organizational element is created. Too many subunits pyramid personnel requirements and promote inflexibility. There is always a reluctance on the part of personnel assigned to a specific unit to cross organization lines in work performance. More can always be accomplished by keeping the number of organizational segments to a minimum consistent with the needs of the organization.

6. FUNCTIONS ASSIGNED TO A UNIT SHOULD BE RELATED OR SIMILAR. This principle is founded on the fact that most people have limited ranges of interest and capabilities and everyone does certain things better than others. The tendency, especially in a rapidly growing organization, is to assign new functions to whomever is most available. Also, when an employee is transferred to another job in the organization, he frequently takes some of his old duties with him, even if they are not related to his new assignment. This, of course, results in many individuals performing a hodge-podge of unrelated tasks.

7. RESPONSIBILITIES ASSIGNED SHOULD BE SPECIFIC, CLEAR-CUT AND UNDERSTOOD. Functions should be assigned to the units concerned in clear, simple language. One of the barriers to clear understanding of functions is the tendency of government personnel to clothe their thoughts and directives in a specialized language. If all functions are assigned in clear-cut terms, there can be no misunderstanding on the part of operating chiefs as to what is required of them. If two different units perform related functions, special care must be taken to draw a firm line of separation where the authorities and responsibilities of one unit ends and those of other units begin. This will prevent jurisdictional disputes and duplication of effort.

8. THE NUMBER OF PEOPLE REPORTING TO A CHIEF SHOULD NOT EXCEED THE NUMBER WHICH CAN EFFECTIVELY BE COORDINATED AND DIRECTED.

   a. There is no fixed formula by which one can determine the number of people who can work effectively under the supervision of one person under varying circumstances, in all types of organizations. A great deal depends upon the character of work being done. A foreman may supervise 20 to 30 people performing the same type of manual labor; whereas, the head of a technical organizational unit may be unable to supervise more than three or four people. For the average type of administrative organizational unit, some experts feel that the number of people who can be directly supervised is somewhere between four and eight. When a supervisor has more than eight persons reporting to him, there is a possibility that the supervisor's ability is wasted, owing to the dilution of his efforts over too many subordinates.

   b. Graicunas Formula -- represents a formula for determining the number of relationships between supervisors and subordinates. It should be used purely as a guide.

9. ALL SUPERVISORS SHOULD KNOW WHO REPORTS TO THEM; ALL SUBORDINATES SHOULD KNOW TO WHOM THEY REPORT. Absence of knowledge on the part of a supervisor as to the personnel over whom he exercises supervisory control, and on the part of the

employee as to whom he reports to, is a clear indication of confusion in assignment of responsibilities and definition of the functions to be performed. Conflicting orders, dual responsibility, and, not infrequently, lowered morale inevitably result from such a situation and seriously affect the performance of the entire organizational unit.

Delegation of Authority

1. RESPONSIBILITY FOR A FUNCTION SHOULD BE MATCHED BY THE AUTHORITY NECESSARY TO PERFORM THAT FUNCTION. Frequently, delegations of responsibility fail to carry with them commensurate authority or are accompanied by such checks as to make impossible the performance of the assigned tasks. In this situation, one will find that before an action can be taken, the supervisor at any level must clear it with higher authority. This type of organization makes frustrated, glorified errand boys out of supervisors and generally results in a reduction of initiative and effectiveness.

2. AUTHORITY TO ACT SHOULD BE AS CLOSE AS POSSIBLE TO THE LEVEL AT WHICH THE WORK IS PERFORMED.

   a. This principle is necessary in order to place in the hands of those who are close to actual operations the authority and responsibility necessary to compete the conduct of those operations. Insofar as decisions can be made closer to the point of action, the occasion for reviews by higher authority and duplication of staff at higher levels is reduced. There are certain practical limitations, of course, that must be placed upon decentralization of authority and responsibility. These limitations are necessary to assure that the basic policies of the entire organization are coordinated and carried out, and that, in certain instances, standard procedures are followed throughout.

   b. This principle applies not only to headquarters offices but to field installations as well. Officers and supervisors at all levels should be given sufficient authority to act in all cases where review by higher authority is not absolutely essential, so that results can be obtained without unnecessary red tape. The failure to effect decentralization within headquarters and installations inevitably results in harassed and overworked officials at the center of administrative organizations and frustrated subordinates at lower echelons. When these conditions exist, the morale of all employees is low and work accomplishment is likely to suffer.

3. HEADS OF ORGANIZATIONAL ELEMENTS SHOULD CONTROL THROUGH ATTENTION TO IMPORTANT POLICY PROBLEMS RATHER THAN THROUGH REVIEW OF ROUTINE ACTIONS. The necessity for speedy action is such that it is better to delegate discretionary authority to subordinates at the risk of a few mistakes than to retard performance by a system of overly-cautious reviews. Subordinates should be selected and trained so that they can be trusted to report unusual policy problems to their supervisors, and to act promptly and decisively on routine functions without reference to higher authority. One of the most common mistakes of over-attention to detail is the insistence of many chiefs on personally signing routine correspondence initiated by their subordinates. Not only does the chief's desk become a bottleneck and result in delays, but the volume of papers to be signed precludes the possibility of a proper review of their contents. It is preferable to develop competent personnel to whom full responsibility and authority can be given for the day-to-day work performance. Failure to follow this principle not only lowers morale and delays actions, but also results in the chief being overburdened with numerous petty details that prevent him from exercising effective supervisory control.

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